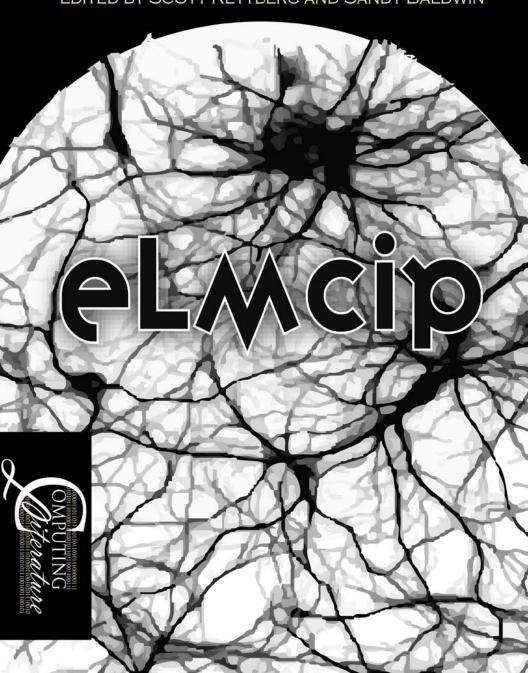
ELECTRONIC LITERATURE AS A MODEL OF CREATIVITY AND INNOVATION IN PRACTICE

A REPORT FROM THE HERA JOINT RESEARCH PROJECT EDITED BY SCOTT RETTBERG AND SANDY BALDWIN



ELMCIP

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Computing Literature, the Center for Literary Computing, Morgantown, WV 26506

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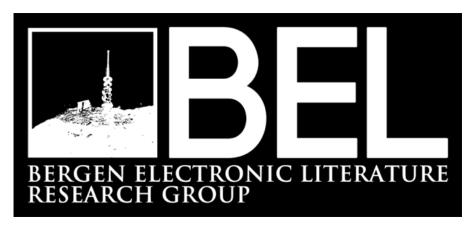


Humanities in the European Research Area





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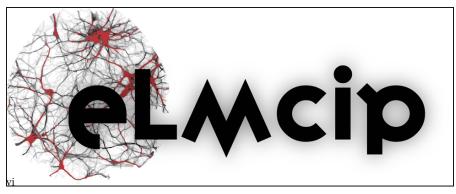


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INTRODUCTION

SCOTT RETTBERG

1.1 SUMMARY

Electronic Literature as a Model of Creativity and Innovation in Practice (ELMCIP) was a three-year collaborative research project running from 2010-2013, funded by the Humanities in the European Research Area (HERA) JRP for Creativity and Innovation. ELMCIP involved seven European academic research partners

and one non-academic partner who investigated how creative communities of practitioners form within a transnational and transcultural context in a globalized and distributed communication environment. Focusing on the electronic literature community in Europe as a model of networked creativity and innovation in practice, ELMCIP intended both to study



the formation and interactions of that community and also to further electronic literature research and practice in Europe.

The ELMCIP project's stated objectives were to:

- Understand how creative communities form and interact through distributed media
- Document and evaluate various models and forces of creative communities in the field of electronic literature
- Examine how electronic literature communities benefit from current educational models and develop pedagogical tools
- Study how electronic literature manifests in conventional cultural contexts and evaluate the effects of distributing and exhibiting e-lit in such contexts.

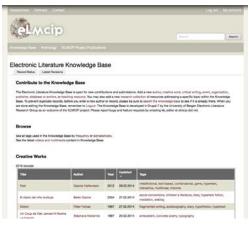
PROJECT THEMES AND OUTCOMES

Within this broader frame, the themes ELMCIP investigated included: the formation of creative and scholarly communities of practice around different factors such as language, region, genre, platform, events, and institutions; different publishing models for electronic literature and the history of electronic literature publishing in Europe; pedagogical models for teaching, researching and institutionalizing electronic literature in different disciplinary contexts and institutional environments; the connections between electronic literature and other modalities of digital arts practice; the applicability of traditional and contemporary literary theory and models of poetics to electronic literature; electronic literature as a performance practice; and models of curating, publishing, and exhibiting electronic literature in diverse contexts including books, online publications, live performance, and gallery exhibitions.

ELMCIP project outcomes included:

Case studies, reports, and research papers. Scholarly outputs included special issues of journals: *Dichtung Digital, Performance Research Journal, Primerjalna književnost*; and books: *Remediating the Social*, and *Electronic Lit-*

erature as a Model of Creativity and Innovation in Practice, and dozens of peer-reviewed articles in scholarly journals. Major reports, such as an extensive report on electronic literature publishing venues, an ethnographic study of network art communities, and a technical white paper detailing the production of a digital humanities research platform, are also significant outputs of the project.



Series of public seminars and workshops. The ELMCIP project organized seven different international conferences addressing specific research themes including Electronic Literature Communities (Bergen), Electronic Literature Publishing (Jyväskylä), Electronic Literature Pedagogy (Karl-

skrona), E-Literature and New Media Art (Ljubljana), Databases and Bibliographic Standards for Electronic Literature (Bergen), Digital Poetics and the Present (Amsterdam), and Digital Textuality with/in Performance (Bristol).

A major international conference including performances and an exhibition. The Remediating the Social conference and exhibition including panels and public exhibition of peer-review commissioned electronic literature, artworks, and performances at Edinburgh College of Art and New Media, Scotland. The event was thoroughly documented with a book / exhibition catalog, full video and photographic documentation, and a documentary.

The Electronic Literature Knowledge Base. An extensive open-access cross-referenced bibliographic and documentation research platform for the field of electronic literature, the ELMCIP Electronic Literature Knowledge Base: http://elmcip.net/knowledgebase now includes more than 9,000 records documenting authors, works, critical writing, events, publishers, organizations, archives, and teaching resources. After three years of development it is now the leading online research resource in the international field.

The ELMCIP Anthology of European Electronic Literature. With the *ELM-CIPAnthology of European Electronic Literature*: http://anthology.elmcip.net the project published eighteen works of European electronic literature in ten different European languages on USB drives (for archiving and Creative Commonslicensed sharing) and on an accessible website, including pedagogical materials.

Video documentaries. Richard Ashrowan's *ELMCIP Remediating the Social* documentary: http://vimeo.com/59494603 was released and distributed

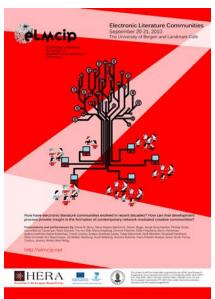


on the web in five- and twelve-minute versions. The documentary provides publicly accessible documentation of the conference, exhibition, and events and a brief overview of the project as a whole. Talan Memmott's feature-length video essay *The*

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Exquisite Corpus: Issues in Electronic Literature: http://vimeo.com/76686430 includes a set of rapid-fire interviews with seventeen authors and critics participating in the ELMCIP seminars in 2011 and 2012, and addresses both issues in electronic literature and in digital culture more generally.

INTERDISCIPLINARY PRACTICE, PUBLIC INVOLVEMENT AND KNOWLEDGE EXCHANGE



The ELMCIP project was fundamentally interdisciplinary. Within the PIs and within the larger group of people working on the project, one encountered literary scholars, poets, fiction writers, computer programmers and technicians, social scientists, designers, librarians and information scientists, installation artists and curators, database developers, and critical theorists. The most fundamental basis of the knowledge exchange embedded in the project was the idea that each output of the project should be viewed not in isolation, but as a branch of the project from which a larger community could bud. Thus, the project was not isolated to

the work of the PIs and postdocs involved in the project. Each of the ELMCIP seminars, workshops, performances, and publications invited the involvement of diverse writers, artists, and researchers. The project Principal Investigators (PIs) not only published research outcomes in peer-review journals but created new peer-review and knowledge exchange platforms. For example: the majority of the workshops solicited papers via an open call; the Remediating the Social exhibition included peer-reviewed commissions via an open call; the international conference was likewise peer-reviewed via an open call. In each case the principal investigators sought to bring in diverse disciplines and voices. Further and perhaps most importantly, while each of the project events included some panel presentations, papers, and other traditional means of disseminating scholarly discourse,

the majority of the events also included public performances and events at which works of electronic literature were read and performed before a live audience. In each case, these performances included local authors and artists alongside international artists. The project also put a premium on longevity and sustainability. When ELMCIP produced an exhibition to accompany a conference, it was not for the edification of the PIs alone, but a public exhibition at a cultural venue that ran far longer than the conference. The anthology was produced from work solicited from artists across Europe. It was distributed in libraries and conferences across Europe." When ELMCIP produced a research database, it was set up so that it would not only be open-access but would also be open to contributions from authors and researchers around the world. This principle formed the basis for international knowledge sharing.

EDUCATIONAL OUTREACH

Several of the project outcomes explicitly aimed at developing further opportunities for research and pedagogy. Talks at the Electronic Literature Pedagogy workshop in Karlskrona addressed electronic literature pedagogy in diverse contexts ranging from secondary schools, to design programs, to junior colleges, to Ph.D. programs, to public outreach contexts. Two of the most significant outcomes, the Knowledge Base and the *Anthology of European Electronic Literature*, serve as both teaching and research tools, the lifespan of which will long outlast the range of the funded project itself. Indeed, both these openly accessed online projects are already being used in classrooms around the world on a daily basis. And the Electronic Literature Knowledge Base, which already documents thousands of works and resources, continues to grow.

IMPACT, PRESENT, AND FUTURE USES OF THE ELMCIP PROJECT RESULTS

From the standpoint of present and future use value, the most important impacts of the ELMCIP project include:

 A cohesive but interdisciplinary European research community in the field of electronic literature.
 Before the ELMCIP project, there were many researchers and creative artists working in the field of electronic literature but there was no sense that they were bound together in a common enterprise or network in comparison to the field in the Americas. After the conclusion of the ELMCIP project, Europe is squarely in the center of the international field. In 2013, the two most significant international conferences in the field, the Electronic Literature Organization conference, and the E-Poetry Festival, were both held in Europe, in Paris and London, respectively.

- A robust digital humanities research infrastructure.
 - After three years of continuous development, the ELMCIP Electronic Literature Knowledge Base is currently the most extensive open access research platform in the international field, including thousands of records and used daily by researchers and in classrooms across Europe and internationally. In providing a new model of how to document and represent a field of scholarly and creative practice, the Knowledge Base is of use not only to this field but an example to other types of digital humanities projects.
- A strong foundation for research, pedagogy, and policy. The ELMCIP Anthology of European Electronic Literature, the Remediating the Social book, the European Publishing Venues Report, and the many other publications of the ELMCIP project not only address specific research questions but provide a basis for further research, classroom teaching, and policy makers considering how to best integrate digital culture and its study into future policy and culture programs.

CONCLUSION OF SUMMARY

A significant aspect of the success of the ELMCIP project was its focus on knowledge exchange from the moment of the project's conception. By reaching across disciplines, traditional boundaries between academe and the arts, publics, means of distribution, and platforms, the project has an extended reach and effects that will far outlast its funded period. The impacts of the ELMCIP project cannot be easily distilled into a series of digestible bullet points. For this reason, the report is being published in a more extensive form, as a book including reflective essays from each of the principal investigators concerning the aspects of the project they directed or produced. The book will be openly distributed in print and digital formats.

1.2 CRP OBJECTIVES

The ELMCIP project sought to address the following research questions:

Q: How do creative communities, amateur and professional, form and interact through distributed media? What are the implications of this for creative practice and its outcomes?

Q: What are the models for creative communities in the field of electronic literature? What forces, such as diverse linguistic heritages, affect the development of such communities? What general insights do these models facilitate?

Q: How might education function in the development and formation of electronic literature communities? What are the implications for and models available to educators?

Q: How do electronic literature practices link to networks and materialise in culturally and linguistically specific contexts? How might innovation emerge in this context?

Based on these framing questions, the principle deliverables of the CRP included:

- A series of case studies and research papers prepared for publication in journals and presentation at conferences.
- A series of public seminars.
- Reports resulting from those seminars, including online and print surveys of publishing electronic literature within Europe and performance contexts for electronic literature.
- A searchable online knowledge base including materials presented during the seminars, information about the project, and bibliographic records of critical and creative works in electronic literature.
- A pedagogy workshop with outreach activities, resulting in extensive documentation that complements the written outcomes, presented

as an accessible website and physical media appended to the final project publication.

- An international conference at which various perspectives are presented and debated within a critical context.
- A public exhibition of electronic literature artworks and performances, with a focus on how they reflect the creative communities within which they are developed.
- A publicly distributed publication consisting of conference proceedings, exhibition catalog, project documentation and an anthology of electronic literature works.

1.3 ACHIEVEMENTS OF THE CRP

1.3.1 PROGRESS BEYOND THE STATE-OF-THE-ART

Europe is a key location in the field of electronic literature, with many significant creative, theoretical, and scholarly practitioners, and many important events and communities. These practitioners and theorists make a significant international contribution to practice and theoretical discourse in the field. However, whilst Europe has strong international representation it is the case that European authors and scholars have, before the successful completion of the ELMCIP project, lacked the infrastructural resources of their colleagues in North America. In the USA the non-profit Electronic Literature Organization provides an organizational hub around which both practitioners and theoreticians can focus their work. Leading American academic publishers, such as MIT Press, University of Alabama Press, and University of Minnesota Press, have produced books on the subject and numerous American universities include electronic literature in their curricula. The Quebec-based New Technologies, New Textualities/Nouvelles Technologies, Nouvelles Textualités (NT2) research laboratory has, since 2005, undertaken a major research project into hypermedia and electronic literature, developing the largest existing francophone database on the subject. The University of California Santa Barbara hosts a national research network on transliteracies, inquiring into how online reading impacts upon our understanding of texts within a multicultural, multi-modal context. The primary way in which the ELMCIP project sought to advance the state of the art in the field was to use these

international projects as benchmarks to meet or exceed in order to advance the state of the research field where it was lacking in Europe.

The ELMCIP project intended to address this lacuna in the European cultural landscape and to extend, within the multicultural and multi-linguistic context of Europe, current practices and theories in electronic literature. The project sought to ensure that debate and practice in this field fully reflects the culturally and linguistically diverse communities from which electronic literature emerges. It also sought to engage a wider range of researchers in various domains in order to improve our understanding of creativity and the formation of communities within European and transnational contexts. The project sought to establish a coherent and inclusive archive of European electronic literature works and an associated documentation database, and to contribute to the development of transcultural artistic networks and new understandings of the role of traditional cultural institutions within a networked European cultural framework. It sought to provide a reflective and analytical account of new kinds of network-mediated creative community. By developing resources such as a bibliographic knowledge base, a survey of publishing practices and venues and an anthology of creative work, the project sought to provide a platform for further research and development.

Among the advancements on the state of the art achieved by the ELM-CIP project, some are very tangible, quantifiable, and measurable, while others (among the most significant) fall into the less-measurable arena of network-building and the establishment of a cohesive research community where one did not previously exist.

The ELMCIP Electronic Literature Knowledge Base is a clear advancement on the state of the art in electronic literature research infrastructure. Although there are a number of other research databases in the field, most notably the Electronic Literature Organization's Electronic Literature Directory and NT2's "Répertoire des arts et littératures hypermédiatiques," the distinctive quality of the ELMCIP Knowledge Base is that it is designed to show the relations between: 1) texts, such as creative work and critical writing, 2) actors, such as authors, publishers, and organizations, and 3) activities, such as events, teaching, archiving, and documentation. The "field model" developed by the Knowledge Base team thus resulted in a database in which the relationships between these different nodes become apparent. This made it possible to not only locate

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works and writing in the bibliographic sense, but also to understand complex relationships in new temporal and thematic ways; for instance to see what genres or technological platforms were dominant over a particular period, or to track the reception history of a work over time. Having developed an extensive (if never completely comprehensive) record of activity in an international scholarly and creative field, the Electronic Literature Knowledge Base now serves further research and pedagogical purposes. The ELMCIP Electronic Literature Knowledge Base is a major advancement in the state of the art of the digital humanities research infrastructure of electronic literature This is evident in basic utilitarian values such as allowing open access distribution of full text versions of hundreds of articles of critical writing, allowing researchers to easily locate works within a particular subgenre, to the pedagogical purposes of enabling teachers to locate model syllabi and develop new teaching resources within the platform itself, to more complex "big data"- style research applications like visualizations that can allow for new modes of literary analysis.

The ELMCIP Anthology of European Electronic Literature and the European Publishing Venues Report (included in the attached volume) both also advanced the European field in distinctive ways. The Anthology, while not the first anthology of digital works published in the field, is the first to consciously reflect European cultural and linguistic diversity. The seminar on Electronic Literature Pedagogy led to the inclusion of a strong and well-thought-out selection of pedagogical materials included with the anthology. By including pedagogical materials, the collection provides expansive models and contexts for teaching electronic literature in diverse pedagogical situations. The European Publishing Venues Report is further the first significant survey of the diverse range of publishers and publishing models for electronic literature operating in the European research area. Together, these two outputs very clearly establish that there both is a developing tradition of digital literature in Europe and provide new contexts for developing it.

The 2010 Electronic Literature Communities seminar and the two special issues of the journal *Dichtung Digital*, in concert with Penny Travlou's ethnographic study of networked writing communities, provide a basis for the analysis of different forms of networked creative and scholarly communities and a rich foundation for further research. The essays collected in the two issues of *Dichtung Digital* make available for comparative analysis for example histories of electronic

literature communities based around linguistic and regional colocation (such as the examples of the Nordic countries, France, and Catalonia), around particular institutionalization and organization initiatives (such as the Electronic Literature Organization and the E-Poetry Festival), around government or cultural initiatives (such as a commissioning program and prize competition in the Netherlands), and around particular genres or technology (such digital poetry produced in Flash or the genre of interactive fiction). Selected essays from these two special issues will be republished in 2014 in a volume titled *Electronic Literature Communities*, to be published in the *Computing Literature* series by West Virginia University Press.

The seminars on E-Literature and New Media Art, Digital Poetics and the Present, and Digital Textuality with/in Performance each advanced the state of the art by focusing on the specific connections between electronic literature and one other close related artistic practice or model of understanding creative practice. The new media art seminar examined e-lit in the context of non-linguistic digital art and conceptual art, the digital poetics seminar examined e-lit in the light of literary theory, and the performance seminar examined e-lit as a performance practice. The *Performance Research* journal also serves to carve a niche for digital practices in performance studies.

The Remediating the Social exhibition, performances, and conference notably advanced the state of the art, particularly in the area of exhibiting e-lit publically and professionally at Inspace in Edinburgh. While other electronic literature exhibitions have been produced, this exhibition commissioned new artworks and performances, providing artists not only time and resources but also a structure for describing and documenting their process, and thus supplies a model of how to bring contemporary artists and authors into the ongoing critical conversation about an emerging discipline.

Most fundamentally, the state of the art of the field of electronic literature in Europe was advanced both in Europe and internationally by driving new collaborations and community formation. ELMCIP has been key to the development of a number of new initiatives, described below in section 1.6.9.

1.3.2 RELEVANCE TO THE CALL

From the outset, the ELMCIP project sought to transcend the instrumentalist debate on the value of creativity and knowledge, situating innovation as an ontological factor in the formation of communities, nationally and transnationally. This focus on creative communities cohered throughout the ELMCIP project, resulting in the most extensive study of the role and function of communities in electronic literature produced to date (in the seminar on creative communities, the *Remediating the Social* conference and book, in the two *Dichtung Digital* issues, and the ethnographic study).

The project engaged extensively not only with traditional humanities academics but also with creative practitioners, technologists, and social scientists. The project results included a public exhibition and an anthology of creative work. More than fifty artists in multiple disciplines were involved in some way. This resulted in knowledge exchange between theorists and practitioners and scholarship that was never disengaged from the presence of creative practice. As a result, it led to a less reductive understanding of creativity and innovation in the scholarship produced.

The project dealt extensively with questions of how creative communities are affected by ICT. The outputs of the project include for example the most extensive open access online research infrastructure produced in the field of electronic literature to date in the ELMCIP Electronic Literature Knowledge Base, which itself serves as a platform for the extension of creative and critical community. The project also sought insight into how ICT affects social formation, and now networked culture related to creativity, technology and innovation. This critical focus was most explicitly developed in the papers produced for *Remediating the Social*, which not only considered the connections between ICT and creativity and innovation in digital literature but also in other spheres such as computer games, copyright law, and performance art. Theorists further questioned the public value of innovations such as cloud computing and social networks, highlighting the complexity of creative practice and community within a highly intermediated networked society dominated to some extent by a few powerful corporate entities.

The project sought to understand and develop the relationship between pedagogy and creative practice in electronic literature. Outputs such as the seminar on Electronic Literature pedagogies, the *ELMCIP Anthology of European*

Electronic Literature and the Knowledge Base further resulted in pedagogical assets, tools, and platforms that are now being used in classrooms, and furthered considerations of pedagogy in the scholarship and creative practice of the field.

The ELMCIP project successfully explored the interaction between different disciplines in the field and encouraged hybrid methods between creative practitioners, academic researchers and technologists. For example: the ELMCIP-commissioned creative work *How It Is in Common Tongues* by John Cayley and Daniel Howe was produced in part as a reaction to critical questioning of Google's access policies to the linguistic databases they are developing based on search queries. The work was commissioned for the ELMCIP exhibition and produced by creative artists and technologists and then shown as an artwork at the Inspace gallery. The work was then further critically interrogated by humanities researchers, including a discussion in an article on human computation in electronic literature. A video interview between the authors and a humanities scholar was also produced and published on the Knowledge Base. This type of layered and iterative interdisciplinary interaction was commonplace throughout the ELMCIP project.

1.3.3 COMPLETED OUTPUTS

Table 1. CRP Outputs

Output no.	Output Name	Lead Partner	Delivery Date	Delivered?	Actual/Forecast Delivery Date	Comments
1	Seminar on Electronic Literature Communities	University of Bergen	Sept. 20, 2010	YES	September 20, 2010	
2	ELMCIP Electronic Literature Knowledge Base and ELMCIP Portal	University of Bergen	June 21, 2010	YES	June 21, 2010	
3	Seminar on Elec- tronic Literature Publishing	University of Jyväskylä	March 28–28 2011	YES	March 28–28 2011	
4	Workshop on Electronic Lit- erature Pedagogy	Blekinge Institute of Technology	June 15–17 2011	YES	June 15–17 2011	
5	Seminar on Elec- tronic Literature and New Media Art	University of Ljubljana	September 22–24 2011	YES	September 22–24 2011	

Table 1. CRP Outputs

6	Seminar on Digital Poetics	University of Amsterdam	December 9–10 2011	YES	December 9–10 2011	
7	Postdoctoral Research (Pedagogical aspects of ELMCIP anthology)	Blekinge Institute of Technology	January 2011 – January 2012	YES		Completion of postdoctoral work (David Prater)
8	Publication of Dichtung Digital #41 – Special issue on Electronic Literature Communities, Part I)	University of Bergen	March 30, 2012	YES	March 30, 2012	
9	Seminar on Electronic Literature as/in Performance	University College Fal- mouth	May 3–4, 2012	YES		
10	Postdoctoral Research (Editorial aspects of ELMCIP Knowledge Base)	University of Bergen	January 2011 – June 2012	YES	June 30, 2012	Completion of postdoctoral work (Eric Rasmussen)
11	ELMCIP Remediating the Social Conference	University of Edinburgh / Edinburgh College of Art	November 1–3, 2012	YES	November 1–3, 2012	
12	ELMCIP Remediating the Social Exhibition and Performance Program	University of Edinburgh / Edinburgh College of Art, Inspace, University College Fal- mouth	November 1–3, 2012	YES	November 1–3, 2012	
13	Publication of ELMCIP Remediating the Social book – conference proceedings and exhibition catalog	University of Edinburgh / Edinburgh College of Art	November 1, 2012	YES	November 1, 2102	

Table 1. CRP Outputs

14	Publication of ELMCIP Anthology of European Electronic Literature on the Web and on USB drive	Blekinge Institute of Technology	November 1, 2012	YES	November 1, 2102	
15	ELMCIP Report on Publishing Venues in Europe	University of Jyväskylä	June 2011	YES	November 1, 2012	Report draft distributed in June 2011, final version published online in 2012
16	Publication of Dichtung Digital #42 – Special issue on Electronic Literature Communities, Part 2)	University of Bergen	December 20, 2012	YES	December 20, 2012	
17	Release of Richard Ashrowan's Remediating the Social Documentary	University of Edinburgh / Edinburgh College of Art	April 1, 2013	YES	April 1, 2013	
18	Publication of special section of Primerjalna književnost	University of Ljubljana	June 10, 2013	YES	June 10, 2013	
19	Release of Talan Memmott's Exquisite Code: Issues in Electronic Literature feature-length video-essay	University of Bergen	November 1, 2013	YES	November 1, 2013	
20	Publication of special issue of Performance Research On Writing & Digital Media	University College Fal- mouth	September 2013	YES – In press	December 31, 2013	
21	Publication of Ethnographic study of electronic literature communities	University of Edinburgh / Edinburgh College of Art	December 2012	YES – In press	December 15, 2013	
22	Final Report	University of Bergen	September 2013	YES	December 15, 2013	

1.4 ACHIEVEMENTS OF THE INDIVIDUAL PROJECTS (IP)

The attached volume includes detailed reflective reports by PIs about each of the principal outputs of the project. This section of the report will therefore present these achievements only very briefly, and reference the full chapters for greater detail.

THE UNIVERSITY OF BERGEN, NORWAY

The University of Bergen team included Project Leader Scott Rettberg, Co-Investigator Jill Walker Rettberg, and funded researcher Eric Dean Rasmussen. The project also funded a technical contractor working on the ELMCIP Knowledge Base, and hours for research assistants who also worked on the project. However the ELMCIP project was made the central focus of the Bergen Electronic Literature Research Group, also led by Scott Rettberg, so a number of people not directly funded by the CRP, including PhD and MA students, librarians, Fulbright scholars, and visiting researchers also participated in ELMCIP activities at the University of Bergen.

The principal achievements of the University of Bergen included:

- 1. Overall management of the Collaborative Research Project;
- 2. Production of the ELMCIP seminar on electronic literature communities and related performance events;
- 3. Production of two special issues of *Dichtung Digital* on electronic literature communities;
- 4. Establishing ELMCIP as a publisher in Norway and interacting with other partners in producing books and digital publications;
- 5. The production, development, content development, and editorial work on the ELMCIP Electronic Literature Knowledge Base; and
- 6. Individual journal publications related to ELMCIP research.

Chapters in this volume including the "Electronic Literature Communities" seminar report by Jill Walker Rettberg and Patricia Tomaszek and "The ELMCIP Knowledge Base" report by Scott Rettberg with Eric Dean Rasmussen

provide a detailed accounting of the main achievements of the IP. The University of Bergen also played a significant role in knowledge transfer, particularly in engaging the international research community in the documentation and archival work of the Knowledge Base project.

BLEKINGE INSTITUTE OF TECHNOLOGY, SWEDEN

The Blekinge Institute of Technology team included Principal Investigator Maria Engberg, Co-Investigator Talan Memmott, and post-doc David Prater.

The principal achievements of Blekinge Institute of Technology included:

- 1. Production of the workshop on Electronic Literature Pedagogies and related performance events (Cabaret Voltage);
- 2. Editorial work, production and publication of the *ELMCIP Anthology of European Electronic Literature*;
- 3. Individual journal publications related to ELMCIP research; and
- 4. Video documentation and interviews conducted during ELMCIP events, resulting in Talan Memmott's film *Exquisite Code: Issues in Electronic Literature*.

Chapters in this volume including "Electronic Literature Communities" by Maria Engberg and "ELMCIP Anthology of European Electronic Literature" by Maria Engberg and Talan Memmott detail the main achievements of the IP.

UNIVERSITY OF AMSTERDAM, NETHERLANDS

The University of Amsterdam Principal Investigator was Yra van Dijk. Hourly research assistants supported production of the seminar.

The principal achievements of the University of Amsterdam included:

- 1. Production of the seminar on Digital Poetics and related performance events; and
- 2. Individual journal publications related to ELMCIP research.

The chapter in this volume, "Poetics in Digital Communities and in Digital Literature", elaborates both the individual research on digital poetics conducted by Professor van Dijk during the CRP and the approaches to digital poetics presented during the Amsterdam seminar.

UNIVERSITY OF LJUBLJANA, SLOVENIA

The University of Ljubljana Principal Investigator was Janez Strehovec. Hourly research assistants supported production of the seminar.

The achievements of the University of Ljubljana included:

- 1. Production of the seminar on Electronic Literature and New Media Art and related performance;
- 2. Publication of thematic section of journal *Primerjalna književnost*, "Electronic Literature and New Media Art"; and
- 3. Individual journal publications related to ELMCIP research.

A more detailed account of the seminar and Dr. Strehovec's conclusions regarding the interface between the digital literary field and new media art can be found in the chapter "E-Literature and New Media Art."

UNIVERSITY OF JYVÄSKYÄ, FINLAND

The University of Jyväskylä team included Principal Investigator Raine Koskimaa, and post-doc researchers Giovana di Rosario and Markku Eskelinen.

The achievements of the University of Jyväskylä included:

- 1. Production of the seminar on Electronic Literature Publishing;
- Writing and publication of a report on Electronic Literature Publishing Venues in Europe; and
- 3. Individual journal publications related to ELMCIP research.

Two following chapters are relevant to the research conducted by this IP. "Electronic Literature Publishing Practices: Distinct Traditions and Collaborating Communities" by Raine Koskimaa reflects on the findings of the complete report on publishing venues in the light of discussions that took place during the seminar, and makes further policy recommendations. The report itself, "Electronic Literature Publishing and Distribution in Europe" by Markku Eskelinen, Raine Koskimaa, and Giovana di Rosario, is also included in its entirety. The report comprises the most comprehensive (if necessarily preliminary) survey of European e-lit publishing venues produced to date.

UNIVERSITY COLLEGE FALMOUTH, UK

The Principal Investigator at University College Falmouth was Jerome Fletcher.

The achievements of University College Falmouth included:

- 1. Production of the seminar on Electronic Literature in/with Performance and related performances;
- 2. Production of the performance program of the Remediating the Social conference:
- 3. Publication of a special issue of the *Performance Research* journal; and
- 4. Individual journal publications related to ELMCIP research.

The chapter in this volume, "Electronic Literature in/with Performance" details the work of the Bristol seminar. Although originally proposed as a survey (report) of performance venues for electronic literature in Europe, as the project developed and an opportunity presented itself, it became clear that the publication of a special issue of the journal *Performance Research* on the subject would be of greater lasting research value and would open more interdisciplinary connections than the originally proposed report. This journal is in press and will be published early in 2014.

EDINBURGH COLLEGE OF ART / UNIVERSITY OF EDINBURGH

The team at Edinburgh College of Art included Principal Investigator Simon Biggs, Co-Investigator Penny Travlou, and Ph.D. student Magnus Lawrie. Additional hourly and contract staff were involved in the production of the *Remediating the Social* conference and book. Non-academic partner New Media Scotland, led by its director Mark Daniels, was integral to the successful curation and installation of the Remediating the Social exhibition at Inspace Gallery in Edinburgh.

The achievements of the University of Edinburgh included:

- 1. Production of the ELMCIP *Remediating the Social* conference;
- 2. Curation and installation of the ELMCIP *Remediating the Social* exhibition;
- 3. Production of the *Remediating the Social* conference proceedings and exhibition catalog;
- 4. Production of the Remediating the Social documentary;
- 5. Production of an ethnographic study of electronic literature communities; and
- 6. Individual journal publications related to ELMCIP research.

1.5 CRP MANAGEMENT

1.5.1 LIST OF SCIENTIFIC & TECHNICAL PERSONNEL INVOLVED IN EACH INDIVIDUAL PROJECT

UNIVERSITY OF BERGEN

Scott Rettberg (Project Leader)

Associate Professor of Digital Culture (to 2012), now Professor

Contract start: May 2006. Permanent contract.

Work time dedicated to ELMCIP: 33%

Jill Walker Rettberg (Co-Investigator)

Professor of Digital Culture

Contract start: May 2003. Permanent contract.

Work time dedicated to ELMCIP: 10%

Eric Rasmussen (Knowledge Base Editor)

Researcher

Contract start: Jan 1, 2011, end: July 1, 2012

Work time dedicated to ELMCIP: 100%

Elisabeth Nesheim

Administrative Assistant

Contract start: June 1, 2010, end: June 31, 2012 (renewable)

Work time dedicated to ELMCIP: 4 hours * 30 weeks per year (split with

Raita)

Meri Raita

Research Assistant (populating the Knowledge Base)

Contract start: Jan 1, 2012, end: June 31, 2012 (renewable)

Work time dedicated to ELMCIP: 5 hours * 30 weeks per year (split with

Nesheim)

Stein Magne Bjørklund

Technician

Contract start: July 1, 2010, end: July 1, 2013

Work time dedicated to ELMCIP: 375 hours total

Note: Bjørklund's hours were exceeded; excess hours were funded by other sources including Norstore and the University of Bergen.

BLEKINGE INSTITUTE OF TECHNOLOGY

Maria Engberg

Lector (Assistant Professor, tenured)

Contract start: September 2007. Permanent contract.

Work time dedicated to ELMCIP: 15%

Talan Memmott

Adjunct (Assistant Professor, tenured)

Contract start: May 2007, end: September 1, 2013

Work time dedicated to ELMCIP: 12 %

David Prater

Postdoctoral Researcher

Contract start: January 19, 2011, end: January 30, 2012.

Work time dedicated to ELMCIP: 100%

The time of contract for David Prater was moved from the original plan due to the later start of the project (originally planned for September 2011–September 2012).

UNIVERSITY OF AMSTERDAM

Yra van Dijk (Principal Investigator)

Assistant Professor, now Professor

Contract start: August 8, 2008, end: September 2013

Work time dedicated to ELMCIP: 25%

Took Professor position at University of Leiden September 2013

Marije Koens

Hourly Administrative Assistant

Work time dedicated to ELMCIP: 5 hours * 10 weeks

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UNIVERSITY OF LJUBLJANA

Janez Strehovec (Principal Investigator)

Associate Professor-contractual basis affiliated senior research fellow and researcher

Contract start: 2001. Annual renewal.

Work time dedicated to ELMCIP: 27.5%

UNIVERSITY OF JYVÄSKYLÄ

Raine Koskimaa (Principal Investigator)

Professor of Contemporary Culture Studies

Contract start: Jan 1, 2012. Permanent contract.

(Professor of digital culture with temporary appointment (1.8.2003- $\,$

31.12.2011))

Work time dedicated to ELMCIP: 10%

Giovanna Di Rosario

PhD, received her PhD degree in June 2011 (Doctoral defense 3.6.2011)

Contract start: December 30, 2011, end: March 30, 2011

Work time dedicated to ELMCIP: 100%

Markku Eskelinen

Postdoc Researcher

Contract start: October 1, 2010, end: December 31, 2010

Work time dedicated to ELMCIP: 100%

UNIVERSITY COLLEGE FALMOUTH

Jerome Fletcher (Principal Investigator)

Senior Researcher

Contract start: September 1, 2000. Permanent contract.

Work time dedicated to ELMCIP: 170 hours per year, for 3 years

EDINBURGH COLLEGE OF ART / UNIVERSITY OF EDINBURGH

During the course of the ELMCIP project the Edinburgh College of Art merged with the University of Edinburgh. This merger did not have any effect on the production of outputs related to the ELMCIP project.

Simon Biggs (Principal Investigator)

Professor

Contract start: July 2006. Permanent contract.

Work time dedicated to ELMCIP: 10%

Penny Travlou (Co-Investigator)

Researcher

Contract start: June 2010, end: June 2013. Work time dedicated to ELMCIP: 20%

Magnus Lawrie

PhD student

Contract start: September 2010, end: September 2013.

Work time dedicated to ELMCIP: 100%

Note: Magnus Lawrie took sick leave during 2012 and 2013. His PhD was not completed. It is anticipated that he will complete in 2014. His absence did not have any impact on the principal deliverables of the project.

1.5.2 EVALUATION OF COLLABORATION AND COMMUNICATION AMONG THE PARTNERS

Although each IP was responsible for a different output or aspect of the ELMCIP projects, many of the projects required collaborative activity from the majority of the partners. For example, while the seminars conducted by each of the partners were open to submissions and featured presentations from experts outside of the consortium, the majority of the principal investigators participated in, and in many cases presented papers at, four or more of the other project seminars. Because so many of the outputs of the ELMCIP project included peer review processes (including some of the seminars, the final conference,

ELMCIP REPORT

the juried exhibition, and the anthology), collaborative work and communication across these review committees was a constant aspect of the project. All of the special issues of journals that the project published, and both of the books produced by the project, include articles and chapters by ELMCIP PIs, as well as by scholars external to the project. ELMCIP PIs have also made significant contributions to the ELMCIP Electronic Literature Knowledge Base. Along with the team at the University of Bergen and other participating international researchers, the researchers of the ELMCIP project took swiftly to the platform and contributed records and papers. Aside from the above, the most significant joint publication by the PIs of the project are the chapters of the volume that follow this introductory report.

Throughout the project, but particularly early on, the principal investigators met frequently to discuss and make decisions about a variety of matters, including the use of technologies and platforms, peer review structures and procedures, staffing challenges and issues, and new ideas that evolved as the project proceeded. Although any research project begins with a map and a plan of activities that will take place, once the project is in motion, that map becomes a territory, which must be navigated and discovered anew. Many of the outputs of the ELMCIP project, including the Knowledge Base, the Anthology, and the films produced by the project, took on new aspects and ambitions as the project proceeded. The scale of the ELMCIP project was always conceived as large, but the scope increased as the project developed. The team of PIs served together as a kind of think tank, working with international colleagues to piece together not only promised outputs but also in a larger sense a sustainable research infrastructure for the field of electronic literature.

There were occasional challenges, but the majority of these were external to the working of the group itself. For example, at one point the administration of a partner's department was resistant to allowing a co-investigator to work the hours they had committed to the project in the consortium agreement. A solution needed to be negotiated with that administration, and was successfully, so that they were compelled to hold up their end of the bargain. At another point a PhD student associated with the project fell sick and his duties on the project needed to be reallocated to other project participants. When the currency exchange rate fell during the economic crisis, leaving Norwegian and Swedish partners with much less funding than originally forecast, the project team needed to

figure out how to do more with less. When Hurricane Sandy hit the east coast of the USA immediately prior to the final conference, the team needed to figure out how to rearrange the schedule and replace certain key speakers one day before the conference, and how to install artworks without the artists themselves present. These were the types of challenges faced, but over the course of the project the team developed as a cohesive team and a research community, so that hurdles like this were easily surmountable.

Though the ELMCIP project has come to an end, it has produced a network of European researchers who are familiar with each other and with each other's research environments. The spirit and the products of that collaboration will continue to benefit the research community for years to come.

1.5.3 EUROPEAN ADDED VALUE

In Europe, the coexistence of cultures is critical to our understanding of community, language, social values, and identity. To understand how creativity emerges within these communities, the ELMCIP project inquired into how emergent transcultural creative communities develop. Electronic literature practices are ideally placed to critically reflect upon this ontology. The community of practitioners and researchers in electronic literature is international and adept in using networked communication technologies in creative practice and the formation of their distributed community.

Involving practitioners and researchers from a number of European states, representing an international creative community, allows insight into how the national and transnational aspects of these communities effect one another, leading to transnational European value as an outcome of the research. The consortium was assembled to include participants from different regions in order to achieve a broad and balanced representation of European perspectives, to include participants from diverse and complementary disciplinary backgrounds, and to include participants with research, technical, and administrative capabilities appropriate to the requirements of the project.

European-added value has been provided by the specific outcomes of the project. Researchers developed, for the first time, a comprehensive knowledge base including bibliographic records of creative, critical and theoretical publications key to understanding the development of the network-mediated electronic

literature community within Europe and in the world. Aspects of the project important for European cultural institutions, such as publishers, galleries, museums, and performance venues, include reports on contemporary electronic literature activity and best practices in those spheres. A well-produced and documented exhibition provided European cultural institutions with a model for making digital literary artifacts publicly available. By editing, publishing, and making freely available an anthology of European electronic literature, with works written in a number of different languages, and including supporting pedagogical material, the project has extended its work into European classrooms and provided youth with an educational experience of digital culture. The ethnographic study provides researchers and stakeholders with a study of how new creative communities develop, practice, and grow on a transnational basis. The project's final report, including the chapters that follow, provides insight and guidance for cultural stakeholders in the European community and will be useful in the future development of EU programs, such as digital content, research infrastructure, and digital humanities aspects of EU ICT initiatives.

1.5.4 CONSORTIUM MANAGEMENT TASKS AND ACHIEVEMENTS

The most challenging aspects of the management of the consortium were, perhaps predictably, front-loaded. Before the project began, there was the need to establish the network, conceive the project, and develop the proposal. Once the project was funded, a consortium agreement needed to be developed and accepted by all of the partners. Consortium management required tracking a number of complex sub-projects as they were being developed and developing efficient communication strategies. Particularly early in the project, there were challenges involved in staffing the project in a timely manner, and in seeing to it that all partners and institutions kept to the consortium agreement as agreed upon. Because six different nations were involved, negotiations were needed to address reporting guidelines, and different academic calendars, traditions, and economies, all in order to bring the project to successful fruition. Throughout, regular communication was vital to the success of the project: via telephone conference calls, in-person meetings, and nearly constant e-mail communication. With seven partners participating, reporting to HERA and to national funding agencies was also a time-consuming aspect of the project. Thankfully, a good support structure existed at the University of Bergen, with adequate support from

the Humanities accounting department and good support at the Department of Linguistic, Literary, and Aesthetic studies, to make consortium management somewhat less difficult.

As many project leaders past could attest, the time required for tasks like reporting should not be underestimated. HERA is encouraged to simplify the reporting requirements in the future, in particular: by unifying financial reporting requirements rather than requiring different procedures for different nations, and by eliminating the reporting of repetitive information. It would also simplify consortium management if clearer guidelines were set in place as to the rates at which different currencies should be calculated. Fixing a currency exchange rate to a particular date for the whole duration of the project—particularly one that was disadvantageous to particular partners—poses challenges for consortium management.

Some partners required an extension of the final expenditures and HERA was able to provide that. This report is therefore coming in a bit later than anticipated. Overall, consortium management went very smoothly the project was well executed in all parts, with all major deliverables accomplished and very significant impacts achieved.

1.5.5 LIST OF INTERNAL CRP MEETINGS, DATES AND VENUES

- June 21, 2010: ELMCIP planning meeting in Vienna
- August 6, 2010: PI teleconference
- September 19–21: Electronic Literature Communities seminar and ELMCIP planning meeting in Bergen
- January 7, 2011: PI teleconference
- January 14, 2011: PI and advisory board teleconference
- March 17, 2011: PI teleconference
- March 28–29, 2011: Electronic Literature Publishing Seminar in Jyväskylä, Finland
- June 15–18, 2011: Electronic Literature Pedagogy Seminar and ELMCIP PI meeting in Karlskrona, Sweden
- June 29–July 1, 2011: HERA Knowledge Transfer Meeting in Zagreb and ELMCIP meeting (Biggs, Rettberg, Strehovec) in Ljubljana, Slovenia
- September 22–24, 2011: Electronic Literature and New Media Art Seminar in Ljubljana, Slovenia

- December 8–10, 2011: ELMCIP PI meeting and Digital Poetics Seminar in Amsterdam, Netherlands
- January 18, 2012: PI teleconference
- March 16, 2012: PI teleconference
- April 4, 2012: ELMCIP PI meeting during Electronic Literature Performance seminar in Bristol, UK
- November 4, 2012: ELMCIP PI meeting during Edinburgh Conference
- February 9–11: ELMCIP PI meeting in Amsterdam on final report / book project
- Additional meetings have taken place with subsets of PIs focused on specific projects. The Bergen team for example met every Friday for a meeting on Knowledge Base development.

1.6 CRP IMPACT: DISSEMINATION, NETWORKING AND KNOWLEDGE EXCHANGE

1.6.1 NETWORKING ACTIVITIES

The majority of networking activities that took place under the ELMCIP project fall into four categories.

- Research dissemination activities: ELMCIP PIs presented their research-in-progress at leading international conferences throughout the duration of the ELMCIP project.
- Research training activities: Because the ELMCIP project itself resulted in a research platform in the Electronic Literature Knowledge Base, a number of the networking activities that took place involved training researchers, writers, artists, and students from outside the project on how to use and contribute to the Knowledge Base.
- HERA network activities: The ELMCIP Project Leader and a number of the PIs took part in HERA network meetings and conferences held throughout the project period. ELMCIP was represented at every HERA event.
- **International networking activities:** In developing research infrastructure, the ELMCIP project became an important player

in a developing international research environment focused on electronic literature and within the broader international digital humanities. A number of networking activities took place that were focused on developing that international network, sharing the lessons learned from the development process, and developing a network for research infrastructure and scholarly communication in electronic literature. See 1.6.9 for discussion of CELL: the international Consortium for Electronic Literature, which is one major outcome of this activity.

See Appendix B for a complete list of all ELMCIP networking activities and related conference presentations.

1.6.2 ELMCIP PUBLICATIONS

See Appendix A for a complete list of all ELMCIP publications

1.6.3 OPEN ACCESS PUBLICATIONS

The ELMCIP project has supported the ideals of open access publishing and the free exchange of funded research. All of the publications directly produced by the ELMCIP project are freely accessible on the Web. Where publishers did not allow immediate open-access (this is the case with the *Performance Research* journal), we have negotiated open-access after a one-year embargo period. The ELMCIP Knowledge Base itself serves as open-access repository. Each critical writing record allows for attachment of PDFs and other downloadable files. In many cases where open-access is not possible directly with the journal, pre-press versions of the articles have been published in the Knowledge Base.

CRP Publications and Open Access	
1.How many articles were published/accepted for publication in peer-reviewed journals?	169
2.To how many of these is open access provided?	142
1. How many of these are published in open access journals?	106
2. How many of these are published in open repositories?	142
3.To how many of the CRP publications is open access not provided?	27
4.Please check all applicable reasons for not providing open access:	
X publisher's licensing agreement would not permit publishing in a	
repository no suitable repository available no suitable open access journal available	
no funds available to publish in an open access journal	
☐ lack of time and resources	
☐ lack of information on open access	
□ other:	

1.6.4 DISSEMINATION AND KNOWLEDGE EXCHANGE

The main knowledge exchange activities of the ELMCIP project have already been addressed in this report's project summary. Because several of the main outputs of the ELMCIP project are themselves platforms for knowledge exchange, and because the field of electronic literature is intrinsically intertwined with Web-based development, production, and dissemination strategies which interrelate in a different way than in print literary culture, it is particularly difficult to separate out research from dissemination.

On the Web, the ELMCIP Knowledge Base platform and the project website, which communicated information about activities, and also includes the online version of the ELMCIP Anthology, regularly receives a good deal of traffic, with substantially higher traffic during the academic year. In 2013, the average number of visits per month was about 4,000. During the period we have been logging traffic in Google Analytics, from Jan. 2012 to the present, 46,466 unique visitors visited the site 70,329 times. See the below graphic from Google Analytics.

This represents substantial use for an open-access online academic research resource. Though it is difficult to garner much useful information from traffic statistics, we can see that the Knowledge Base is reaching an audience.



More useful user studies and surveys will be developed in the future. The University of Bergen Electronic Literature Research Groups continues to develop and maintain the Knowledge Base.

Social media platforms were used to communicate the research-in-progress as it proceeded. For instance, we established a Twitter account and used it heavily during our events to communicate news and to involve other researchers. During the "Remediating the Social" conference, Twitter played a particularly important role. Some of the researchers at the University of Edinburgh produced a custom application to display the #ELMCIP tweets and the stream was projected on one of the walls of the main conference venue, with both conference participants in the wall and researchers elsewhere actively discussing the conference as it was taking place.

The project also made active use of video-sharing platforms including Vimeo and Bambuser. The majority of our seminars and conferences were made available in video form either during or after the event. The Twitter discourse mentioned above was, for example, made richer by the fact that researchers who were not present were able to watch event live on our Bambuser channel. The ELMCIP Vimeo channel (http://vimeo.com/elmcip/videos) has provided our main means of archiving and disseminating video content. In addition to documentaries, interviews, performance videos, and lectures have been made available online.

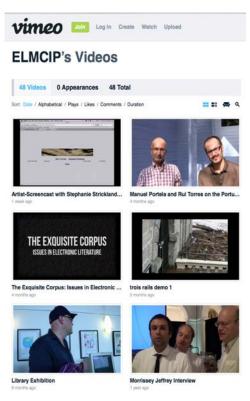
The project uses a Facebook group to keep the community of scholars and writers contributing to the ELMCIP Knowledge Base up-to-date and involved with the project as it continues to develop.

The majority of the ELMCIP seminars included performance events, which were open to the public. These all involved both local and international

artists, and several had large audiences. The ELMCIP Remediating the Social exhibition also extended for several weeks longer than the conference, where it reached a local arts audience in Edinburgh.

While the ELMCIP project can be said to have made extremely successful use of digital media as a dissemination platform, it was somewhat less successful

in outreach to conventional media channels such as print newspapers, radio, and television. This mainly had to do with time and resources available. Since the majority of significant outputs were produced towards the end of the project, the team was too busy producing them to promote them in the media, and now that they are produced the funded period of the project is over. In retrospect, it also would have been useful to budget for a public relations person to engage with the media. The team did have some media appearances, particularly in local news media at each of the participating universities, but this aspect of our outreach could have been stronger.



The knowledge exchange aspects of the ELMCIP project will continue. The Knowledge Base continues to garner significant use. As the final outputs of this project are released, including this book and another to follow on Electronic Literature Communities, new opportunities to engage with new publics can be anticipated.

1.6.5 TRAINING ACTIVITIES

Training activities under the ELMCIP Project included:

- Standard PhD researcher training for the PhD student Magnus Lawrie, at Edinburgh College of Art.
- Training of Edinburgh Co-I in specialist ethnographic data recording software.
- The public components of the ELMCIP seminars, the first of which was held in Bergen in 2011.
- Outreach activities and training involved in the ELMCIP knowledge base – hosting workshops to train researchers in electronic literature how to use the knowledge base for research and how to contribute to it.
- Training of undergraduate and masters students in documenting and conducting interviews at the BTH project seminar on E-literature and Pedagogy
- Training of MA (now PhD) student Elisabeth Nesheim and PhD student Magnus Lawrie in Drupal front end programming for the ELMCIP site at the University of Bergen.
- Editorial training for PhD students Patricia Tomaszek, Elisabeth Nesheim and Meri Raita at the University of Bergen.
- A number of different workshops for scholars, writers, and artists
 on using and contributing to the ELMCIP Knowledge Base (held in
 Norway, Finland, France, the UK, and the USA).
- Integrating the use of the Knowledge Base into the UiB electronic literature curriculum, by allowing lecturers to create their own teaching resources based on database content, and setting up assignments in courses that actively explore and utilize the resources in the database.
- The development of the course DIKULT 207: "Digital Humanities in Practice," at UiB. In this course, undergraduate and graduate students work on developing research and technical projects in the ELMCIP Knowledge Base, while developing a theoretical and contextual understanding of digital humanities as an emergent field of practice.

- DGLS441 Digital Literature, master's level course on electronic literature, University of Jyväskylä, Dept. of Art and Culture Studies held by Giovanna Di Rosario & Raine Koskimaa.
- Instructional videos for contributors the Knowledge Base that are distributed online.
- Videos of readings, seminars, and events associated with the ELMCIP project distributed online.
- The distribution of pedagogical materials (sample syllabi, lessons plans, pedagogical essays) with the *ELMCIP Anthology of European Electronic Literature*.
- The development of a teaching resource's content type and other
 pedagogical tools in the ELMCIP Knowledge Base, to enable
 teachers to gather and share materials, and to supervise student
 work developed within the research platform.

1.6.6 CRP CONTRIBUTION TO THE HERA JRP VISIBILITY

ELMCIP acknowledged the support of HERA and the EU-FP7 in printed publications and online projects produced during the period. During project seminars, workshops, conferences, performances and exhibitions, the HERA JRP was always thanked and the work of ELMCIP situated in the HERA framework. ELMCIP participated in all HERA network workshops and events, including playing a prominent role during the HERA JRP final conference. The ELMCIP PL also participated in the "lessons learned" session of the second HERA JRP opening conference. Because so many of the project outputs are outward-facing and have ongoing practical value for the international research community—the ELMCIP Knowledge Base, *Anthology*, journal special issues and books will be in active use for years after the project itself ends—we expect that ELMCIP will have a "long tail" effect on HERA JRP visibility.

The HERA framework is the most important trans-European initiative in the humanities today. All the researchers participating in the ELMCIP project are grateful not only for the impact that the HERA JRP has had on their own research and on the field, but in a wider sense in advocating for the humanities and raising awareness of the contributions that the humanities make to contemporary society.

The ELMCIP project has had substantial and lasting impact on the field of electronic literature in Europe and internationally. While prior to the ELMCIP project, it could be said that the European research community was on the margins of the field of electronic literature, in comparison to activity in the USA and Canada, Europe now stands on equal footing with our transatlantic cohort, in a central position within the international field.

1.6.7 KEY CONTRIBUTION OF THIS CRP TO THE HERA JRP PROGRAMME

The key contribution of the ELMCIP project to the HERA JRP has been to demonstrate that a large-scale multinational collaborative research project can work in the humanities across multiple research modalities and can have substantial impact within a concentrated research domain. From the standpoint of the HERA JRP, perhaps the most important aspect of the ELMCIP project is the diversity of research outputs provided by the project. While ELMCIP resulted in "traditional" humanities outputs such as books and peer-review journal publications, these stand alongside a vast and continuously expanding open-access online research database, and an anthology distributed online and on USB drives that contain literary works that are also computer programs. While events included "traditional" conference presentations and panel discussions, they also included performances that engaged with an interested public, a professionally produced art exhibition, and open-access video documentaries that can both be screened at conferences and festivals, and individually accessed at any time online. The key contribution of the ELMCIP project has been to demonstrate that while traditionally disseminated printed scholarship is still a vital aspect of humanities research, digital humanities approaches and public engagement are equally valuable in developing a creative field of academic practice.

1.6.8 KEY CONTRIBUTION OF THE PROGRAMME TO THIS CRP

Beyond the impact that the HERA funding itself had on making ELMCIP possible, the HERA JRP provided European researchers in the interdisciplinary field of Electronic Literature with the opportunity to develop a cohesive and

sustainable research network. Both the field and individual research have been made more visible on many different scopes and levels: internationally, on a European basis, in the contexts of research councils at the national level, and within individual universities. The ELMCIP project in many ways served as a seed for different research programs that have subsequently grown out of it. For instance, at the University of Bergen, the ELMCIP Knowledge Base is core to the activity of a vital research group and research funding for opportunities such as visiting post-doc researchers who have come to Bergen to develop specific research collections within the Knowledge Base (such as Brazilian, Russian, and Spanish-language research collections). In many ways the ELMCIP project has served as a fulcrum for other research opportunities, both for participating researchers and others. For example, although France was not a partner of the JRP, the existence of ELMCIP provided an argument for researchers interested in developing similar programs under the auspice of a government-designed "Laboratory of Excellence", the H2H Labex. In 2013, the two most substantial conferences in the field, the Electronic Literature Organization conference and the E-Poetry Festival, were both held in European venues.

Beyond ELMCIP, the HERA network itself has lead to substantial exchange of ideas and collaborative methodologies among researchers in digital culture, and across diverse fields ranging from archaeology, history, sociology, art history, musicology, and ethnography. During the project itself, the collaborative support structure developed by HERA, the ESF, and the project leaders of all of the funded projects was vital to the success of the ELMCIP project. HERA provided an extensive and rare opportunity for humanities scholars of all disciplines to learn from each other. While a strong network was developed specifically out of ELMCIP, the humanities network developed from HERA itself is even more remarkable.

1.6.9 MOST IMPORTANT NEW INITIATIVES

In an international context, the most important new initiative developed as a result of the collaboration of ELMCIP and the HERA JRP is likely the Consortium for Electronic Literature (CELL), an international network of organizations, research groups, and digital humanities projects focused on electronic literature. This network includes a number of organizations based in Europe, North America,

and Australia, each of which is developing databases and archives related to the access, preservation, and documentation of electronic literature. The group currently has three important initiatives in progress:

- Developing bibliographic documentation standards for works of electronic literature which will be of use not only to the participating projects but also to libraries and archives internationally.
- Developing a mechanism for shared searches across the participating network of documentation databases and archives.
- Assuring the portability and sustainability of the information developed and aggregated by the participating databases.

Also on the international level, the USA-based Electronic Literature Organization is working on further integration with the European electronic literature research milieu. In 2013, the ELO conference was held for the first time in Europe at Paris venues including the Bibliothèque National de France and the Centre Pompidou. A second European iteration of this important international conference will be hosted in 2015 at the University of Bergen.

The partners in the ELMCIP project are also looking forward to the upcoming Horizon 2020 and Erasmus programs. Within Horizon 2020, partners in the network are investigating possibilities for research infrastructure and digital humanities. Within Erasmus, the partners are considering developing a joint Erasmus Mundus MA program focused on electronic literature.

A core concern post-ELMCIP will be to continue to develop new research outcomes using the ELMCIP Knowledge Base and indeed to assure that the database itself can be supported and sustainable well into the future. Having developed a leading digital humanities research platform and documented a great deal of domain knowledge within it, we now have responsibility to see that it survives and thrives into the future.

SEMINAR REPORTS

ELECTRONIC LITERATURE COMMUNITIES

JILL WALKER RETTBERG AND PATRICIA TOMASZEK

INTRODUCTION: DOCUMENTING CREATIVE COMMUNITIES

of celectronic literature, the ELMCIP project chose to use several methodologies. First, we organized a seminar on the topic. The ELMCIP Seminar on Electronic Literature Communities, held in Bergen on September 20–21, 2010, invited researchers from within the project and external contributors to present analyses of specific communities within the field of electronic literature. Seventeen papers were presented and discussed, covering communities in France, Catalonia, the Netherlands, Italy, Finland, Scandinavia, and the US, as well as international communities such as in interactive fiction (IF). Presentations are available in the ELMCIP Knowledge Base, and all are documented with full text and/or audio recordings.

As a second step, we invited and solicited contributions to a special issue of *Dichtung Digital*, a leading peer-reviewed journal in the field of digital art and electronic literature since 1999. The number of strong papers was so high that we decided to release two issues of the journal (issues 41 and 42). These collected essays comprise the most extensive collection of analyses of electronic literature communities published to date and include nineteen scholarly articles. Some of these papers were written by scholars looking at a community from a distance in time or geography, while other papers were written by scholars and authors who were participants in the communities they describe.

In addition to these articles from and about a wide variety of electronic literature communities, social geographer Penny Travlou, a co-investigator on the ELMCIP project, spent time in selected artistic communities, using participatory observation and ethnographic methodologies to gain insights into their creative processes and community formation. Her work is discussed

¹ Full documentation of the seminar can be found in the ELMCIP Knowledge Base by searching for the title of the seminar, Electronic Literature Communities, or going to the following URL: http://elmcip.net/event/elmcip-seminar-electronic-literature-communities>.

in detail in a separate chapter in this volume. An additional resource is the report "Electronic Literature: Publishing and Distribution in Europe" that Markku Eskelinen and Giovanna di Rosario wrote for the project (also included in this volume).

The ELMCIP Electronic Literature Knowledge Base has proven to be invaluable in gaining an overview of those community structures that may not be visible at first glance. When we began the project, we thought of the Knowledge Base as a way to share our findings and document project activities, but it has turned out to be a great deal more than that, providing a robust and constantly expanding infrastructure for studying the field of electronic literature itself. As the ELMCIP project is drawing to a close, we are just beginning to truly harness the steadily growing data contained by the Knowledge Base through visualizations, network analyses, timelines, and content and tag analyses.

In addition to the contributions of project members, scholars, and authors from the electronic literature community, three PhD and postdoc researchers have devoted three months to working with the Electronic Literature research group in Bergen to build solid documentation of specific national or linguistic communities. All of these were funded externally to the initial ELMCIP project budget: Dr. Luciana Gattass developed a research collection of Brazilian electronic literature; Melissa Lucas developed a research collection of Nordic electronic literature; and Dr. Natalia Fedorova is developing a research collection of Russian electronic literature—all within the structure of the Knowledge Base and thus interlinked and integrated with our existing data. In addition, University of Bergen-based PhD scholar Patricia Tomaszek initiated a collection with references to Polish electronic literature, and we expect more focused collections of this nature. It is clear that this work will continue to progress after the ELMCIP project itself is completed.

This chapter presents key findings from the sixteen separate analyses of communities in the *Dichtung Digital* issues and analyses of the data in the Knowledge Base of Electronic Literature.

EMERGENCE OF COMMUNITY: ORGANIC GROWTH OR EXTERNAL STIMULATION

How does a community begin? Electronic literature grows out of literary creativity that uses the computer, and, as such, it is a literature that is fundamentally connected to a specific set of technologies. It could be argued that it has this in common with a number of other major literary genres. The novel is shaped by the technology of the codex book as well as by the social-cultural dynamic of the enlightenment, much as the ballad or the ancient epos was developed for the human voice and memory as well as for the social settings in which stories were told in those times. And yet these forms grew much more slowly than is the case for electronic literature.

Two models for community formation are apparent in the studies we have gathered: organic growth and external stimulation. In most countries and genres, there are few or no connections between the early works of electronic literature, and there is little or no community; the authors are not aware of each other or of related work. Possibilities include:

- The community grows organically as the number of new works increases, as practitioners discover each other, and as more and more people discover electronic literature through scholarship, criticism, or popular discussion.
- A community is externally stimulated by a funding body that organizes competitions, awards, events, and publication venues to encourage the growth of a community. This is what Yra van Dijk (2012b) calls "top-down digital literature" or "institutionalized and planned collaboration." Organically grown communities tend to have competitions, awards, events, and publication venues that are organized bottom-up by an already active community coming together rather than top-down by funders or a single practitioner who aims to jump-start a national community.
- A community never emerges and that only disconnected individual works exist.

The dichotomy between organic growth and external stimulation is not absolute, and many electronic literature genres and communities operate on a continuum between the two models, or they shift between them. For instance,

interactive fiction (IF) began organically with individual games created in the 1970s, then rapidly became a commercial industry in the 1980s (Montfort and Short 2012). This is so far the only example of a form of electronic literature having a clearly profit-driven commercial infrastructure. When graphical games took over, an organic community of players, writers, and programmers took over the development of the text-based games they called interactive fictions, leading to a well-defined system of annual competitions and events. Another example of a community that shifted between organic growth and external stimulation is British electronic literature. In the UK the publicly funded organization trAce Online Writing Centre, based at Nottingham Trent University, was a strong cohesive force in electronic literature from 1995 to 2006; nevertheless, an organic community existed before trAce, was strengthened by trAce, and has continued to develop after trAce. It is useful to study the effects of external stimulation, such as public funding of competitions, in understanding how creative communities develop (JW Rettberg 2012; van Dijk 2012b, 2013; Borràs 2012).

When can we say a creative community is established? If we follow the model of the novel, and assume that a work each week is a reasonable measure of a critical mass that demonstrates an established field or community (Moretti 2005, 5), then we can see that English language electronic literature reached this level shortly after the year 2000, based on the records we have documented in the ELMCIP Knowledge Base (see Fig. 1). No other language has yet achieved this level of activity. For instance, in February 2013, we have documented a total of seventy-five works in French over all time, fifty-one in German, and thirty-three in Spanish. Although the Knowledge Base is not a complete documentation of the field—completeness is not possible with such a constantly expanding and developing field—these numbers are indicative of the size of the field in different countries.

Another reason why there has been more activity in English language and especially US-based electronic literature is the speed of adaptation of technology. In Jill Walker Rettberg's (2012) study of early electronic literature in the US, we see two small communities in the 1980s. On the west coast of the US, authors like Judy Malloy and Jim Rosenberg met and shared work and ideas on the WELL (Whole Earth 'Lectronic Link), an important and very early electronic dial-up bulletin board system launched in 1985 which allowed for communication, dis-

cussion, experimentation, and dissemination of, among many other things, electronic literature. On the east coast, authors like Michael Joyce, Stuart Moulthrop, and John McDaid, along with scholars and programmers like Nancy Kaplan, George Landow, Elli Mylonas, and Mark Bernstein, met at conferences and in each other's kitchens. While the west coast community literally met online on the WELL, the meeting points on the east coast were physical conferences and print journal articles about the intersection of writing, the arts and humanities, and technology (JW Rettberg 2012). Many of these were academic conferences, attracting both academics and programmers. The east coast community also included many scholars and had a close relationship to teaching practices and to pedagogical and research-based uses of hypertext and technology.

The advent of the web meant that geographic divisions became less significant. But the US was a leader in early access to the Internet in schools, universities, and among the general population, and this early access to, and public awareness of, the Internet likely helped spur the growth of electronic literature in the US. The dot.com boom of the late 1990s made it possible for the Electronic Literature Organization to win seed funding sponsored by corporate and individual donations (S. Rettberg 2012). Thus the US-based dot.com boom funded the start of an organization that has been central to electronic literature ever since, though with less strong funding than at its beginning. The organization and the

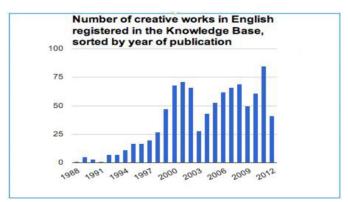


Fig. 1 The number of creative works published in English as documented in the ELMCIP Knowledge Base as of February 2013. The Knowledge Base is not exhaustive, so there will be works not yet registered in the Knowledge Base, but this does show that at least this many works exist.

communities it served and that grew alongside it were strong enough to continue to develop without significant sources of funding.

France was another country where citizens had early access to computer networks through Minitel, and this is one important reason why French electronic literature, or digital literature as French scholars and practitioners more frequently translate *literature numerique*, has had a significant community over many years. As Serge Bouchardon (2012) describes, early electronic literature was published on Minitel as early as 1985 and included text animations. Another important background for French electronic literature was the well-established tradition of mathematically constrained writing practices, as seen in Ouvroir de Litterature Potentielle, or OuLiPo (Bootz 2012).

In France, different strategies led to forming communities within electronic literature: the ALAMO group (the acronym in English stands for "Workshop of Literature Assisted by Mathematics and Computers") was founded with "strong governmental support" in 1981 (Bootz 2012) and triggered work productions by developing tools and computational methods intended for writers. Another approach to gather authors "that would develop animated digital poetry" in France was a review of telematic art called *Art-Accès* (led by artist Orlan and poet Frédéric Develay), which produced three issues between 1985 and 1986. While Bootz notes that the review "did not create a literary movement," it gave proof that authors working together to produce works for a publication served as a method for community-building. Both approaches demonstrate the role of purposefulness for creation and possible community formation.

European countries and regions like the Netherlands, Norway, and Catalonia are characterized by languages spoken by a relatively small number of people, by a later general adoption of the Internet than the US, but also by a social system where the arts receive public funding to a greater extent than in the US and where public funding is explicitly used to protect and promote national culture and language. Given the small language group and slower adoption of the Internet, it is not surprising that these countries have had far slower organic growth of electronic literature communities. However, they have instead seen electronic literature externally stimulated by public funding (Rustad 2012; Borràs 2012; van Dijk 2012b).

Interest in specific technologies can create sub-communities in electronic literature. Often these technologies correspond to genres. The authoring software Storyspace was used to write many early hypertext fictions; Flash was the

dominant authoring tool for e-poetry in the first decade of the 2000s (Leishman 2012); and interactive fiction uses very specific authoring tools such as Inform and TADS. Sometimes these platform-based communities are driven by strong individuals or by user groups that in many ways follow the structures of groups developing around other kinds of software.

ORGANIC COMMUNITY SPACES: LISTSERVS, BLOGS, AND ONLINE JOURNALS

Print and online journals as well as other online spaces, such as blogs, mailing lists, discussions in Facebook groups, and Twitter hashtags, are important centers of communities, much as nineteenth century literary communities were often centered around literary journals and salons. Most journals in the field of electronic literature were set up by authors and scholars of electronic literature, usually without external funding, although some journals have been supported indirectly by an editor's position at a university, such as *Dichtung Digital* or *electronic book review*.

A journal addresses interested readers but also potential creators who produce for the intended purpose of being published in a particular venue. This is how the success of the French journal *alire*, since its first publication in 1989, may be explained. It is also important to note that the journal came out of the group called L.A.I.R.E. (the acronym in English stands for Reading, Art, Innovation, Research, Writing). This is another example of how the dynamic between online and offline communication works both ways. We are not only moving from print journals and physical meetings towards digital collaboration; the digital also influences and produces print literature and physical literary communities. Similarly, the interactive fiction community, in addition to extensive online community spaces, also has physical monthly meetups for participants who live in California (Montfort and Short 2012). Geography still matters.

Communication platforms can be strong definers of community. As already mentioned, an early example is the WELL. The founder and editor of the online-based literature and arts journal *Drunken Boat*, Ravi Shankar (2010), argues that blogs, listservs, and online journals help to build infrastructures for communities. While each web venue constitutes community differently due to differing purposes, audiences, and formats of dissemination, Shankar shows how these open and relatively unregulated spaces are important in providing open

access to works and scholarship, providing for collaboration and allowing free discussions. Loss Pequeño Glazier (2012) and Serge Bouchardon (2012) also discussed listservs and mailing lists as community-building factors in their *Dichtung Digital* articles.

Electronic literature has been discussed in online forums since at least the 1980s (Bootz 2012; Bouchardon 2012; S Rettberg 2012), but in the 1990s list-servs became a common form of communication. The Poetics List, established at the University of Buffalo in 1993, was an important channel for discussions on electronic literature, as was the list ht_lit, run by Kia Mennie. Listservs provided a particularly important space for communication in such a dispersed community, where most authors and scholars at this early stage did not have other local collaborators. As Shankar argues (2010, 533), "listservs have the potential to create particular kinds of community and open channels of communication between individuals who might never previously have had any chance at dialogue." Bouchardon (2012) also points out that online meeting places are particularly important for electronic literature because "the medium used by the actors is also the medium which is used by the authors of the works discussed." Authors and readers of electronic literature are by necessity active online.

Early listservs and discussion forums tended to be topic-based rather than based on existing friendships as is often the case in today's social media. You would sign up to a particular listserv or forum because you were interested in the topic, and, through participating or simply reading discussions, you would learn about other work in the field or ideas about electronic literature in general. This might lead to collaboration, shared vocabularies and contexts, or simply the spread of ideas and knowledge about works. As such, early discussions of what postings to the Poetics List *should be about* were tantamount to the literary identity the group would form (Glazier 2012). Similarly, Serge Bouchardon (2012) describes the French discussion list *e-critures* as "socio-technical" and a "reflexive device" that throughout the years since its foundation in 1999 has had an impact within the community on creative practices, literary forms, and a shared language of criticism for evaluating electronic literature.

Different listservs had different kinds of conversations. Bouchardon (2010) describes how works-in-progress would be discussed on the *e-critures* list and also notes that there was an emphasis on technique and medium over aesthetics: "The various shifts observed (from a criticism of the text to a criticism of the de-

vice, from the genre to the format, from the aesthetic use of the written language to an aesthetics of materiality), emphasize the medium and the technical dimension." Discussions in the Flash and IF communities were likewise frequently about technical problems in which code would be exchanged or discussed (Leishman 2012; van Dijk 2012a). In other forums, there was an emphasis on understanding, contextualizing, defining, and reflecting on what was *happening to literature* in digital media and what it might become. This is shown in Glazier's (2012) discussions of the *Poetics* listserv and is also evident in the German forums as documented by Patricia Tomaszek (2011) in her article on German electronic literature, as well as in a specific study on canonization processes in discussions on four German mailing lists by Florian Hartling (2003).

At the same time, what is common to both the US-based (Glazier 2012) and French-based (Bouchardon 2012) listserv-communities discussed in the two special *Dichtung Digital* issues on electronic literature communities is that a number of individual creative works evolved from those collaborative discussions. In turn, Rob Wittig (2012) presents how collaborative works evolved in a community of people that share(d) meeting places both in space and time. Wittig argues that certain physical environments and social conditions can be more conducive to collaborative creativity than others. People can therefore plan for and try to create optimal conditions for creativity. Collaborative writing and collaborations between authors, visual artists, sound artists, and programmers also became an important element of community formation, as discussed both by Wittig (2012) and Scott Rettberg (2005).

EXTERNAL STIMULATION: AWARDS, COMMISSIONS, AND COMPETITIONS

In his personal essay for *Dichtung Digital* 42, Norwegian concrete poet Ottar Ormstad (2012) describes how he, after many years of writing concrete poetry for paper publication, created his first digital work for the sole purpose of possibly being screened at the E-Poetry Festival in 2009. Today, Ormstad is an active member of the e-poetry community and is one of Norway's foremost authors of electronic literature. This is but one example of how communities can be stimulated by external events, in this case, a festival.

At the same time, the E-Poetry Festival was organized by participants in an organically evolving community, described by Loss Pequeño Glazier (2012)

who also was the initiator of the E-Poetry Festival. Awards and events are often organized by communities and serve to strengthen the sense of community as well as creating a shared set of references and, in some cases, a canon of works. Other competitions and awards serve as cohesive forces to draw together an emerging community, as did the Electronic Literature Awards in 2001, where the authors John Cayley and Caitlin Fisher won prizes for poetry and fiction. Cayley was already an established author at the time, whereas Fisher was a relative newcomer to the community. Likewise, the interactive fiction community's awards serve to encourage writers already in the community to share their work.

Countries with smaller language communities and less development of electronic literature have also used funding to jumpstart electronic literature. Important strategies here are commissioned works or competitions where proposals are invited, and the best proposals are given funding to develop the works. One example is *Digitale Fortellinger* ("digital stories"), a 2006 collaboration between the Norwegian Production Network for Electronic Art (PNEK) and the Norwegian Broadcasting Corporation (NRK) as curated by Per Platou. Here, a series of works were funded and supported after a competition. Most participants came from the visual arts, and none had created electronic literature previously. The Vinaròs Prize likewise stimulated a great deal of activity in Catalonia (Borràs 2012), as does the yearly Dutch *Poetry on the Screen* funding round. While the Norwegian competition was not continued, it did lead to the production of around twenty works. The Dutch and Catalan projects have been repeated, and this sustained funding appears to have helped stronger communities to emerge.

Many of the authors who submitted work for these competitions and awards did not continue to make electronic literature; however, some have. In *Poetry on the Screen*, authors and visual artists are paired up, and some of these collaborations have continued beyond the festival. Dirk Vis and K. Michel, whose work is in the second *Electronic Literature Collection* (2011), are one example; another is the collaboration between Jan Baeke and Alfred Marseille. Tomaszek argues that the early awards in Germany in the 1990s served as a form of *pre-processing* that encouraged creation of net literature (Tomaszek 2011; see also Suter 2012).

A common feature of the awards and competitions in Norway, the Netherlands, Germany, and Catalonia is that before they took place, there was not already a strong field of electronic literature in the region. A few works existed in each language, but there was little if any community structure. The awards served to expand knowledge of electronic literature, and they gave financial, technical, and aesthetic support to people interested in creating new works.

Other awards, held in cultural contexts where electronic literature was already an active field of practice with independent community structures, have drawn attention to a field that already was strong, although the works and authors who were honored were often relatively unknown or were newcomers to the field. Examples are the ELO Awards in 2001 and the *trAce*/AltX Awards in 1999 and 2000. These awards were not the very beginning of a field in the same ways as the Norwegian, Dutch, German, and Catalan competitions but instead provided a nexus for the field to center around and made it easier for readers and teachers to find their way in a large field and to choose works to read or teach. As Yra van Dijk argues in an article on the IF-community, the function of these awards is not only selective, but multifaceted, too: for example, a "canonization process" takes place in these competitions. Generally, one could say that a "poetics" of digital literature is created as works are judged for awards: a consensus is reached within the community as to the form and function of these works.

Purposeful productions also play a role in pedagogy, both for teaching how to create (such as at the Literary Arts Program, Brown University) and for teaching electronic literature theoretically. In *Growing up Digital*, Laura Borràs (2012) presents a case study of how the Catalan e-lit community was raised by the efforts of a network that offered authors a platform to produce and publish electronic literature. Journals can also provide such a network, as happened for a time when the Croatian literary magazine *Libra Libera* published hypertextual literary experiments from 2000 to 2001 (Vuković 2012, 3). These initial steps in Croatia, according to Katarina Vuković's article about Croatian electronic literature, did not lead to the development of an independent community, and, as Vuković suggests, the reasons may be many, ranging from socioeconomic conditions to a realistic turn in Croatian literature at this time. Perhaps if cultural funding had been available for electronic literature in Croatia at the time, it would have been possible to nurture the creative energy that was apparent in these early experiments and to provide support for an independent community to emerge.

FROM AVANT-GARDE TO MAINSTREAM?

As Loss Pequeño Glazier (2012) writes in his article for *Dichtung Digital* 42, presenting the history of e-poetry, some practitioners in the field have worried that the current ubiquity of the digital is at odds with the possibility of electronic poetry:

[W]hen one watches what happens in the media: the way kinetic text is used in advertising, the superimposition of text and image in movies such as Wall Street and many other films, the digital doctoring, re-arrangement, decoration of time-based media, you can see how one might be pessimistic about the ditch into which the euphoric dancing letters of the early Nineties have now fallen.

What was once avant-garde experimentation is now becoming mainstream (Engberg and Bolter 2011; van Dijk 2011). This is also the case as ebooks become commonplace, and some of them, in particular those aimed at children, use techniques first pioneered in electronic literature ten, twenty, or thirty years earlier.

What will then happen to electronic literature as a field and as a collection of creative communities? Will electronic literature merge with mainstream literature, as mainstream literature loosens its attachment to the constraints made necessary by the codex book, or will electronic literature remain a challenging external force? What will happen to the communities that have emerged around the practice and scholarship of electronic literature? Will today's genres and communities of electronic literature remain, or are they primarily short-term experiments leading to something else?

So far, we see no sign of decline. The 2013 Electronic Literature Organization Conference, held in Europe for the first time, had a record number of submissions. New authors and scholars are entering the field and, to some extent, are redefining and expanding it. Electronic literature is increasingly being taught in universities around the world. As the codex book is making way for other forms of dissemination, arts councils around the world are exploring new ways of funding literature, and, in this, they are not only looking at e-books published by traditional publishers but are becoming aware of other, less product-oriented or massmarket-oriented forms of literature, such as electronic literature.

There is still much to be learned about the differences between communities of electronic literature around the world, but, through our research and contributions from scholars throughout Europe and other continents, we are

beginning to trace the contours of the emergence of related fields of practice. We see differences from country to country and genre to genre when it comes to how these creative communities develop: organically or with external support. The most successful communities are those where organic growth has been supported at an early stage by external support in the form of funding, awards, or journals, and we see that this support structure may be initiated by the practitioners themselves and remain fairly informal, or it may be initiated by arts councils or institutions. Educational institutions have also been important in the development of electronic literature, both by supporting scholars' creative and academic work, and by teaching a new generation of students about this new form of literature.

Future study in this area will be greatly aided not only by the wealth of documentation that has been spurred by the ELMCIP seminars and related publications but also by the digital documentation in the ELMCIP Electronic Literature Knowledge Base, which remains open to scholars, students, and the general public, and which will continue to grow as the communities of electronic literature themselves continue to grow.

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ELECTRONIC LITERATURE PUBLISHING PRACTICES: DISTINCT TRADITIONS AND COLLABORATING COMMUNITIES

RAINE KOSKIMAA

THE SURVEY OF ELECTRONIC LITERATURE PUBLISHING AND DISTRIBUTION IN EUROPE: AN INTRODUCTION

In this chapter, the findings and outcomes of the report on Electronic Literature Publishing and Distribution in Europe and related seminar, held at the University of Jyväskylä in March 2011, are summarized and discussed.² In the survey, electronic literature refers to "works with important literary aspects that take advantage of the capabilities and contexts provided by the stand-alone or networked computer." In this definition, it is significant that both digitized print literature and print-like digital literature—so-called e-books—are excluded. There are essential similarities in the cultural and commercial status of electronic literature in the thirty European countries³ this survey managed to cover. It is possible that some major players in the field may be missing, but it is unlikely that their forms of networked publishing practices would constitute a major counterexample to the findings presented here.

This survey covers most of Europe. The three main borderline areas are Russia, the Ukraine, and some newly independent countries in the Balkans. Russia is partly covered through an additional resource (Fedorova 2012, 122-124).

As there are no systematically gathered materials on the topic preexisting, the report is by necessity partly a historical account of the development of the electronic literature scene in various European countries. We are, however, concentrating here on the publication processes and procedures of electronic literature and not writing the history of European electronic literature. That would be

² The report, authored by Markku Eskelinen and Giovanna di Rosario, is included in this volume.

³ Austria, Belgium, Bulgaria, Croatia, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, and the United Kingdom.

a major task in itself, and there is an attempt at such history (or rather, histories) ongoing in the *Cybertext Yearbook*,⁴ where articles on the histories of Catalan, Croatian, German, Polish, Russian, and Slovene electronic literature have been published so far. Christopher Funkhouser's (2007) *Prehistoric Digital Poetry: An Archaeology of Forms* is an important account of the early forms of electronic literature. The ELMCIP Knowledge Base, in future, may also serve to present a thorough account of the European (but also global) electronic literatures.

MAIN FINDINGS AND CONCLUSIONS FROM THE REPORT

When starting the survey on the publishing institutions and processes of electronic literature in Europe, it soon became evident that the general rule in the field is an author's noncommercial self-publication and its somewhat more institutionalized form: publications of a literary group (such as Perfokarta in Poland or Infolipo in Switzerland) that sooner or later may find their way into more inclusive portals and occasionally to online journals as well. Multimedia literary works are sometimes commercially published on CDs and DVDs, but, beyond these, electronic literature is clearly a community and not a market-driven scene.

Outside France and its history of online and offline literary journals publishing electronic literature (ever since the Minitel/teletext era and *Art-Accès* in the mid-1980s), we did not come across a single review or journal that was designed solely for publishing electronic literature. It is much more typical that e-lit is published together with scholarly papers, net art, or digitized literature, especially with sound, visual, and concrete poetry.

There are several different patterns in e-lit publishing and distribution in Europe. In a few countries, there does not seem to be electronic literature at all (Romania, Greece, and Luxemburg). In the former Eastern Europe except Poland (Hungary, Bulgaria, the Czech Republic, and Slovakia), in the Baltic countries (Estonia, Latvia, and Lithuania), and in the former Yugoslavia (Croatia, Serbia, and Slovenia), as well as in Iceland and Ireland, authors' self-publications existed, but national portals were not found. Surprisingly, the pattern was the same in Italy, although an extensive database on Italian experimental literature including electronic literature is well on its way. In the Nordic countries (except Sweden and Iceland), we find the combination of regional and international portals and

^{4 &}lt; http://cybertext.hum.jyu.fi>.

authors' websites. As the scope of the regional Elinor portal covers Sweden, too, we can include it in the same pattern as its Nordic neighbors.

Almost self-evidently, the biggest European nations and languages dominate, although there are important differences within this group of six languages and language areas. They are, in population size and the amount of native speakers, respectively: English, French, German, Spanish, Polish, Italian. The major portals, the most important reviews, the few commercial publications, the e-lit collections, and almost every competition take place in these languages. The main positive anomalies outside this sphere are easy to list: Slovenia (close ties between electronic literature and new media art); Portugal (one major review); Norway (one competition and regional portal); and Finland (one major international portal and several translated works of electronic literature).

There are five main characteristics of e-lit publishing and distribution in Europe. First, with very few exceptions, e-lit does not constitute a commercial, but instead a community-centered, activity. Second, most e-lit that satisfies the criteria used in this survey is freely accessible or downloadable on the Internet. Third, as electronic literature is often seen and situates itself in the continuum of twentieth century experimental and avant-garde literature, it is culturally in the margins of more mainstream literary practices or even completely separated from them. Fourth, the ongoing technological changes in the commercial publishing world, including, for example, the competition among publishers, teleoperators, bookstores, and hardware and software manufactures over the digital marketing and distribution channels of literature (e.g. portable reading devices such as Kindle and tablet computers such as iPad), do not yet seem to be closing the gap between electronic literature and mainstream literary practices. Fifth, institutionally, various e-lit communities are supported by or intertwined with, if anything, either the academic (creative writing programs, scholar-authors, presentations at conferences, etc.) or the art world (museums and galleries that may or may not get public funding).

The lack of commercial publications and publishers effectively decentralizes the scene and leaves e-lit authors with three basic types of publication possibilities: self-publication, publication in portals if such structures exist (in many ways and cases this is just a form of networked self-publication), and publication in e-lit journals. Two additional options are only available to some authors: museums and galleries prefer works that are as much literature as visual arts (e.g. text-

based installations, textual sculptures, kinetic and holographic works, digital multimedia). Publications in e-lit collections such as the two existing Electronic Literature Organization (ELO) ones in the US seem to be something that may happen in major European languages later in this decade. *The ELMCIP Anthology of European Electronic Literature* (edited by Maria Engberg, Talan Memmott, and David Prater), primarily designed as a pedagogical tool, with its eighteen works in ten languages, leads the way on this front.

It is evident that electronic literature is not a market-driven literary phenomenon but a community-driven scene with an accompanying set of aesthetic, social, and cultural values and practices. Although e-lit is isolated from most of the trends and concerns of mainstream publishing industries, it is close to and sometimes almost inseparable from other literary avant-gardes that are using the variety of non-digital media. In this respect, its cultural position could be described as a hyper-niche (a niche within a niche). Quite ironically, this exemption from media attention and monetary exchange and the strong emphasis on aesthetic and social motivation may go a long way to guarantee the creativity of these communities, especially as literary canons, editorial constraints, stable publishing structures, production and distribution costs, and copyright laws do not play a decisive or inhibiting role in most e-lit activities. At the same time, they do not play an enabling role in cases requiring marketing or other support which may also limit the field of innovations.

Electronic poetry, however, with its many forms, genres, practices, and venues seems to be an exception. The production numbers of e-poetry are on a level that is capable of supporting and justifying the existence of several reviews, journals, and both national and international competitions. It has a long and diverse history that merits collecting; some of its intermedial forms can be circulated and presented in nonliterary contexts; and, last but not least, e-poetry in this century constitutes a truly international scene of writing. In fact, one may even ask if there is electronic literature outside e-poetry anymore. Even if the activity would be strongly focused on e-poetry, that should not be a problem. After all, poetry is culturally and institutionally defendable, supportable, and expandable as literature or art, or both.

REFLECTIONS ON THE SURVEY

As part of the E-lit Publishing survey, an interim version of the report was presented and discussed in the ELMCIP Seminar at the University of Jyväskylä in March 2011. In addition to the ELMCIP researchers, several external experts were invited to give feedback to the process.⁵ As community-driven publication activity, electronic literature publishing has not taken any clear stance towards open access or the free and open source software (FOSS) movements as Kai Ekholm, the Director of the Finnish National Library, noted in his comment to the report. Some of the authors have employed Creative Commons (CC) licensing, and, most notably, CC licensing has been adopted by the ELO Collections and the ELMCIP Anthology Of European Electronic Literature. This may be seen as a shortcoming, a lack of respect towards the value of one's own (or one's own reference group's) creative work and potential interest outside of the direct circle of acquaintances and colleagues. There might be need for education in intellectual property rights issues for electronic literature authors and publishers. On the other hand, it may as well be that the lack of interest towards intellectual property rights is related to the nature of e-lit works, which are often not classifiable as stable and well-defined "works."

Promoting open source practices would bear important advantages for the long-term accessibility of e-lit productions. Keeping the source code open would significantly improve possibilities for migrating the works to new platforms and would thus improve their accessibility. Open source code would also allow better chances for derivative works, which, in a community-oriented activity, is an important avenue for new creations.⁶

Mark Marino raised the question of the usefulness of nationality-based divisions in the "postnational era." While it is certainly worth giving future consideration to the need to maintain and foster national divisions in the elit publishing world, it is very much in evidence that in Europe there are distinct electronic literature traditions based on nationality and language. Not

⁵ Invited guests were Philippe Bootz, Laura Borràs, Nia Davies, Kai Ekholm (could not attend but sent e-mail comments), Peggy Hughes, George P. Landow, Mark Marino, Marko Niemi, and Beat Suter. The presentations and discussions can be viewed at the ELMCIP Vimeo repository.

⁶ A case in point would be Nick Montfort's poem generator *Taroko Gorge*, modified first by Scott Rettberg as *Tokyo Garage* and with several additional modifications up to this date.

only that, but regional emphases are visible in that there are regional funds to support electronic literature writing and publishing. The most noteworthy example of this is the Viñaros Electronic Literature Prize, funded by the Spanish city of Viñaros.

The methodological choices in the report do lead to certain favored approaches. There is a tendency to look for national lineages, i.e. how certain traditions are formed and passed along. Whereas this is a necessary step in understanding the larger picture of electronic literature publishing in Europe, it may have the consequence of excluding some more independent and more extreme cases from the account. This is certainly a genuine concern for a study within the framework of "creativity and innovation in practice," if the most innovative practitioners are either not recognized (because they are not part of the lineages) or not accepted into the account (because they are seen as "something else"). This may also be the nature of community-centered action more generally. Once the electronic literature community has taken its form, it reinforces certain definitions of what is understood as proper electronic literature. To quite a large extent, this problem is tackled through the acknowledgement that electronic literature is brought together through several communities, a situation which is addressed in the report (opening the survey towards the visual arts and gallery presentation-oriented authors, for example, or discussing at length the omission of MOO and interactive fiction from the survey) so that there is not just one monolithic e-lit community but a congregation of differently oriented subgroups.

What is, and what is not, electronic literature, then? The so-called digital life, or digital life writing, for example, in many cases borders literary creative writing practices found in electronic literature. Digital life writing is also another form of community-driven action. Inevitably, there will always be a gray area, where electronic literature ceases to be the dominant concept, and some other conceptualization will be more fruitful. It may be a question of framing; some of digital life writing probably is written with such artistic intentions that it should be counted as e-lit, whereas most of it is not. From the perspective of publishing, however, this should really not make a difference, as digital life writing is community-driven activity in a very similar way as e-lit publishing. One exception might be a small-scale commercial dimension in some life blogging through product placement and other advertisement.

One could also question, as Markku Eskelinen in the discussion did, if there even is such a thing as a global electronic literature scene as strong as the national traditions seem to be. Scholarship is a different matter, and the research field is more global (even though Asia is a bit apart from the scene), which may to some extent distort the image regarding creative work. There, the national traditions play a more important role. But the findings in the report, even if accepting the methodological bias favoring national/language divisions, quite strongly speak on behalf of the importance of national scene versus global e-lit scene.

Translation, then, is a crucial question. As Nia Davies from the organization Literature across Frontiers⁷ (LaF) reminded, lack of translations is a big challenge already in print literature (especially so in the Anglo-American world), which is one of the main motivations behind LaF to begin with. With e-lit, the challenge is even harder, with less funding, less resources, and with the added technical complexities. One of LaF's main modes of work is to arrange translation workshops, and that is something which the electronic literature community should also foster. First steps towards this have already been taken with the Translating E-literature Conference arranged by the University of Paris on June 8, 2012.

NEW PLATFORMS, NEW DISTRIBUTION MODELS

Electronic literature and, especially, related technologies are constantly developing. In the two years since the Publishing Electronic Literature in Europe seminar, we can already detect certain important changes. First of all, tablet devices and large touch screen smart phones have permeated the developed world. One can argue that these devices, for the first time, offer a proper platform to publish and experience electronic literature. Also, the content distribution services built for these devices, like Apple's AppStore, Android Market, or Windows Store, offer a possibility for small scale commercial distribution of works without the need to have a contract with a traditional publishing house.

So far, it seems that tablets and smart phones have been adopted more eagerly for publishing digitized literature—the revolution started by the Kindle

⁷ Literature Across Frontiers (LAF) is a European platform for literary exchange, translation and policy debate http://lafpublications.org/>.

has led to a situation where reading of digital books is, for the first time, seriously challenging print literature. In the electronic literature scene, however, such a shift is not really detectable. The Hyperliterature Exchange,⁸ a British site, promotes and encourages "the sale of hyperliterature—electronic literature, cyberliterature, hypertext, new media literature, nonlinear literature, digital poetry, Flash poetry, etc." and has in its catalog digital fiction and poetry published by small publishers in France, Canada, Australia, and US, or by the authors themselves. As far as we can tell this enterprise is unique in Europe, and it, or something in similar vein, might develop into a Spotify or Netflix type of service for electronic literature.

One interesting example of the new type of electronic literature publishing comes from genre fiction, in this case science fiction. Best-selling sci-fi authors Neal Stephenson and Greg Bear, with a small group of fellow authors, started to publish a collaborative fiction titled *The Mongoliad* under the Subutai Corporation.9 The work was serially published as chapters of a browser-based e-book or, alternatively, as additions to a mobile device applet through a system called Personal Ubiquitous Literature Platform (PULP). The work is multimedial in that the text chapters are accompanied by illustrations and video clips. Readers have to register to gain access to the content, and, with a subscription fee, it is possible to buy wider access to the contents as well as access to a higher degree in the community ranking. The readers are actively encouraged to provide feedback and even contribute their own content to the work itself (such as illustrations) or to the accompanying "Mongoliad Pedia". Contributing to the Pedia is another way to proceed in the community ranking. This is an experiment relevant to e-lit publication as it is discussed here in many ways. Most importantly, science fiction is very much a community, a fandom-centered world. In *The Mongoliad*, a middle way between traditional publishing and purely amateur-driven fanzine publication is sought after. Also, the subscription-based access, with choices from free registration to institutional membership, provides a range of service comparable to many commercial online content vendors (from a limited free access to premium membership).

⁸ There are 132 titles in the catalog (as of March 27, 2013), prices ranging from free to \$99.99 Canadian (for a CD ROM). There are also print books discussing e-lit included in the list. http://hyperex.co.uk/index.php.

^{9 &}lt; https://mongoliad.com/">.

Despite the near-professional design of *The Mongoliad*, the work is infested with bugs and incompatibility problems across platforms. Also, the community-driven action seems to have diminished quite soon after the initial excitement. *The Mongoliad* has also been published as a multi-volume print book (available also in Kindle edition) since 2012. It might be that the online *Mongoliad*, after all, ended up mainly as promotion for the print book. Pessimistically, one might see this as a failure despite there being an already formed readership available, even though it is too early to really say how the experiment ultimately will turn out. Optimistically, *The Mongoliad* could be seen as a symptom of more general interest in the kind of expanded writing e-lit is representing.

THE IMPACT OF ELMCIP

The contribution of the ELMCIP Project and especially the launching of the ELMCIP Knowledge Base have already started making a difference in European e-lit publishing. What Simon Biggs (2010, 191–202) said about the situation of e-lit in the UK some years ago still holds true about e-lit in Europe:

It remains the case that whilst there are many artists and authors active in electronic literature in the UK, if you wish to access their work then you generally have to visit their personal websites. This means that the responsibility for the maintenance and dissemination of such artworks remains with the authors themselves.

The Knowledge Base and the *ELMCIP Anthology* are changing the situation. The Knowledge Base, at least in its current form, does not answer the challenge of long-term preservation of the works themselves, but, at least, there now is one place where a potential e-lit reader can find at least a big portion of European e-lit, if not all. The Knowledge Base, then, may also serve as a promotion channel for e-lit publishers.

The works selected for the *ELMCIP Anthology* are only a small fraction of the works written in Europe, but, at least for these works, the Anthology offers an additional archiving feature, not to mention the pedagogical materials attached to the Anthology, providing a new, educational publication of its own.

When it comes to building a comprehensive picture of electronic literature publishing and distribution in Europe, the survey discussed here serves as a starting point. All of the data gathered in the report is fully transferred to the ELMCIP Knowledge Base, and new information is added constantly. It is our

aim that in the future this kind of overview could be generated easily from the Knowledge Base without the need for laborious detective work as was the case with this report.

RECOMMENDATIONS

- Establishing European E-Lit Awards. Prior and existing e-lit awards and prizes have managed to bring visibility to e-lit and its authors, but the range of languages represented in any given prize has been highly limited. More open European E-Lit Awards could help bridge the nation-based e-lit communities.
- Multilingual Anthologies. The Anthologies serve to resolve, partially
 at least, the long-term preservation issue of e-lit, and they play an important pedagogical role as educational resources. The ELMCIP Anthology should be maintained and new volumes published regularly.
- *Translation Workshops*. Workshops would help to maintain the linguistic diversity of the European e-lit scene. They could be arranged in connection with the Anthology.
- *Including E-lit Works in Public and Academic Libraries*. Pilot projects could be established, for example, using the edited anthologies, where a library would provide additional information and support for readers interested in getting acquainted with e-lit.¹⁰
- Establishing an International, Multilingual Online Journal that Focuses on E-lit and Publishing Translated Works. Critical writing could also be published. Funding would be needed to ensure an up-to-date technical platform and long-term maintenance, to have at least one paid editor to provide professional quality, and, ideally, to pay writing fees for contributing authors.
- Subscription Fee-Based Commercial Repository of Electronic Literature. Such a repository might offer a mid-way between voluntary, free access; community-based publication; and full-scale commercial publication.

¹⁰ Currently, there is one project along these lines underway at the University of Aarhus, Denmark, with several Danish Libraries involved.

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ELECTRONIC LITERATURE PEDAGOGIES MARIA ENGBERG

education regarding electronic, or digital, literature were foregrounded in a series of activities centered at Blekinge Institute of Technology (BTH, Sweden) during the ELMCIP project. The activities were focused on an initial mapping of pedagogical efforts throughout Europe concerning electronic literature, led by the Principal Investigator (and author of this chapter) in collaboration with the BTH-based ELMCIP postdoctoral researcher. In addition, the BTH team, consisting of the Principal Investigator, Co-Investigator, postdoctoral researcher, and assistants, organized a themed workshop in 2011 that centered around the question of electronic, or digital, literature and pedagogy. This chapter will focus on the best practices that emerged out of that workshop, the research into pedagogical activities, and relevant published reports. The aim is to provide a basis for policy decisions in the field of education, the arts, and culture in Europe as we face the profound changes that the digital has brought about in these sectors.

DIGITAL LITERATURE AND PEDAGOGY WORKSHOP

During a three-day workshop in Karlskrona, Sweden (June 2011), invited teachers, researchers, and artists presented their experiences from teaching digital literary practice and theory from Europe, North America, and Australia. Leading up to the workshop and beyond it, the team at Blekinge Institute of Technology researched various institutions in Europe that include electronic literature or related digital artistic practices in their curriculum. The goal was to familiarize ourselves with the current state of teaching electronic literature in Europe. Further, the aim within the ELMCIP project was to understand how education enhances the creation of creative communities where the practice of electronic literature is taught and how educational models can help to develop and support literary and artistic practice in local environments, as well as across Europe.

The overall theme of the workshop was the examination of educational models of the study and practice of electronic literature, focused on the European context and drawing upon experience in the United States and Australia.

The invited pedagogues presented papers that ranged from addressing individual courses to presenting national concerns. There are still relatively few European examples of courses and programs that include electronic literature. Often, such courses exist in a diverse range of disciplinary contexts, and, thus, courses are informed by different theoretical and practical traditions. The presentations reflected upon the divergent landscape for teaching of electronic literature in Europe and elsewhere and, in so doing, presented some important lessons that can be taken from the level of the individual institutions into national and European guidelines for education.

The workshop presenters included: María Mencía (Kingston University, UK); Søren Bro Pold (Aarhus University, DK); Renée Turner (Piet Zwart Institute, NL); Jörgen Schäfer (University of Siegen, DE); Kate Pullinger (novelist, UK); Erling Björgvinsson (Malmö University, SE); Carolyn Guertin (University of Texas at Arlington, US); Serge Bouchardon (Université de Technologie de Compiègne, FR); Philippe Bootz (Université Paris 8 Vincennes Saint-Denis, FR), and Jay David Bolter (Georgia Institute of Technology, US). In addition, there were two roundtable discussions chaired by Principal Investigator Maria Engberg and Co-Investigator Talan Memmott (both Blekinge Institute of Technology) that included, in addition to some of the aforementioned presenters, Jerome Fletcher (University College Falmouth, UK), Joseph Tabbi (University of Illinois at Chicago, US), and Lissa Holloway-Attaway (Blekinge Institute of Technology). The presentations and the roundtable discussions touched upon a range of factors that determine the institutional, pedagogical, and creative dimensions of electronic literature in a learning context. While most examples were from tertiary education, examples from primary and secondary school education were presented as well.

A basic concern for the workshop as well as for some of the presenters was the presence of digital literature in education and the issue of disciplinary homes for e-lit in teaching and research. In his presentation, "In Search of Sustainability: Institutional and Curricular Limitations of Teaching Electronic Literature," Jörgen Schäfer (2011) posed the question of what is the state of teaching electronic literature in Germany, and, subsequently, what is its status as a subject within German literary studies? Schäfer presented a series of possible answers to those questions. The first was that electronic literature has become relatively invisible in recent years. The reason, Schäfer argued, is that German university structures

and disciplinary organizations do not easily allow for electronic literature to be included into disciplines such as Germanistik (mainly because of a lack of German e-lit works) or in the context of other national philologies (in part because of the relative invisibility of e-lit). Another, more pertinent issue that Schäfer raised is that of e-lit's "institutional in-between identity," borrowing a term from Roberto Simanowski (2010, 231-248). Schäfer agreed with Simanowski's (2010, 231-248) argument that there is a tension between the "supra-departmental nature" of e-lit and the existing structures of German universities. This situation, Schäfer argued, is one that extends beyond Germany, and, therefore, the issue of the institutional home for e-lit is a general one. He suggested that there are four main affiliations in an international context of research and teaching of e-lit. These affiliations then shape the methods and epistemological frameworks for teaching e-lit. They are, Schäfer posed: 1) literary studies; 2) communications or media studies; 3) art and design schools or creative writing programs; and 4) computer science departments. Schäfer's mapping of the teaching and research contexts for e-lit internationally serves as a useful distinction between the main disciplinary contexts for e-lit at present. Of course, other configurations depend on the various national university structures. In Germany, Schäfer continued, a useful bridge for allowing for interdisciplinary study of e-lit would be to "reanimate" the so-called Allgemeine Literaturwissenschaft (or "general study of literature") of the 1970s and 1980s in German universities. Another would be to conduct interdisciplinary programs within Medienwissenschaft, such as Schäfer did with colleagues in the collaborative research center Medienumbrüche (or "Media upheavals") at the University of Siegen, 2002-2010. Within this center, Schäfer and his colleague Peter Gendolla taught various e-lit courses for undergraduate and masters level students. In closing, Schäfer pointed out, however, that the realities of existing university structures still largely hinder the kinds of transdisciplinary intersections that e-lit as a topic of study demands. The solution to this issue is, Schäfer suggested, international collaborations and networks.

Søren Pold (2011) from Aarhus University described how he and his colleague had moved into a general curriculum in digital aesthetics and away from digital literature. Thus, at Aarhus University, teaching "electronic literature [is] embedded in a broader framework of aesthetics and interface aesthetics." The programs address broader issues of digital culture, such as which kind of interfaces, software, institutions, business models, and art forms digital culture supports

and what the relations between art, technology, and business are. In addition, the specificities of what amounts to new cultural industries and practices emerging in Web 2.0 require different models of analysis and teaching. Such concerns include, but are not limited to, the more specific concerns of digital literature. Pold also addressed a similar problem as Schäfer, which is the relative lack of interest in digital literature within literary studies departments. This is indeed a recurring problem and a concern across the countries that we studied in the ELMCIP project, which I will return to at the end of the essay.

Serge Bouchardon (2011) from Université de Technologie de Compiègne (FR) presented the PRECIP project (*PRatiques d'ECriture Interactive en Picardie*), which was conducted during 2009 to 2012 in collaboration with the Picardie region in France. The project aimed at analyzing and supporting the development of digital writing practices. In particular, the project explored how digital writing could be taught in secondary schools and universities. Fifteen researchers in four labs in France studied the specificities of digital writing in order to propose modalities for teaching digital writing through conceptualization of teaching models. They also conducted actual experiments in various teaching environments ranging from secondary school and university education to senior citizens engaged in lifelong learning activities. Finally, the project presented a series of recommendations for educational policy.

The research team started from the overall research question: can an understanding of the theoretical level of the digital and the analysis of creative practices—both requiring reflexivity—have an impact on the quality of digital writing practices? The project's scientific goal was to study the specificities of digital writing and outline skills that would need to be taught. A model of three levels of the digital was proposed: theoretical, applicative, and interpretative. The operational goal was to develop innovative writing practices for education and lifelong learning. The hypothesis was that a thorough understanding of the theoretical level of the digital provides the reflexivity needed to develop digital writing practices. Such a claim is based on the idea that digital writing indeed *is* a specific form of writing whose properties can be taught. The PRECIP project postulated that creative practices, in particular digital literary practices, provide suitable examples of digital writing that allow for reflexivity. In particular, digital literature provides a lens that reveals the tensions between the different levels of the digital (theoretical, applicative, and interpretative). In a series of experiments, the PRECIP

project explored different modes of digital writing such as hypertextual writing, multimedia writing, collaborative writing, and interactive writing. These modules were taught, for instance, at a secondary school in Crépy-en-Valois, at Paris 8 in a bachelor level course on digital culture, at a masters level course at the University of Amiens, and in so-called digital public spaces (community-based centers providing citizens access to digital technology as well as learning opportunities).

Also from France, Philippe Bootz (2011) from Université Paris 8 Vincennes Saint-Denis, presented a survey of teaching of digital literature in France: "From Literary Digital Creative Writing to Digital Literature Teaching in France: A Preliminary Survey." His survey mapped out the individual teachers and their activities in French learning environments from the late 1980s until the present day. Interviewing seven teachers in France who have been or are still active, Bootz asked questions about the context of the teaching and what materials and pedagogical methods were used. The main results indicated that teaching of digital literature happens in the context of courses devoted to a more general topic or as part of a creative writing course. The teaching generally used highly sophisticated writing software and therefore resulted in a series of post-course activities such as continuous seminars, writing activities, and publication of works. In addition, the teaching was most often closely linked to advances in research on digital literature. Many of the teachers are also prominent researchers and writers of digital literature in France such as Jean Clément, Jean-Pierre Balpe, Alexandra Saemmer, and Philippe Bootz himself. This is indeed common in the digital literature community internationally as well. One of the conclusions to be drawn from the survey, Bootz (2011) suggested, is that "the teaching of digital literature has a great deal of potential for dissemination in the teaching of creative writing where it would be very beneficial and well received."

A key component of the Karlskrona workshop was the creative practitioners' participation. A fair amount of teaching of digital literature and art is conducted by artists and writers in various teaching settings. It was paramount to the BTH study of educational practices in Europe to include their experiences in our research. Artists and writers were therefore invited to offer their experiences of teaching electronic literature, and one of the two panel discussions was devoted to the perspective of practitioners' experience of teaching digital literature. Kate Pullinger (2011), an author residing in the United Kingdom, presented the pedagogical communities that have become linked to her multimodal narrative work

Inanimate Alice (four episodes published between 2006 and 2008) with collaborator Chris Joseph. Inanimate Alice is taught in schools and universities, but the pedagogical communities have largely grown in primary and secondary schools, supported by teachers who see the work as an important teaching resource. Pullinger presented some of the student-made Inanimate Alice-inspired episodes that have been created in schools by young pupils all around the world. Numerous teachers in Australia and the United States, for instance, write blogs or entries on the Inanimate Alice Facebook page, relating the work that they do in bringing the issues of digital literacy into focus through the multimodal work. Readers are creating their own storylines, additional episodes, and are learning to express themselves differently by learning about multimodal narrative through Inanimate Alice. The communities and outputs appear on many different websites and blogs devoted to learning, such as Edmodo, a social learning platform. Working with Chris Joseph and Ian Harper, Pullinger has worked to facilitate the learning opportunities with *Inanimate Alice* by creating a teacher education pack, a booklet with starter activities, and curricular resources. The authors argue that the work addresses "government initiatives like the National Curriculum in England and Media Literacy outcomes in Canada which emphasize the important role technological skills play in all sorts of learning environments" and offers a way for teachers to integrate new media, or digital literacy, into the classroom (2005-2011). Inanimate Alice, with its still growing pedagogical communities, offers important insights for teachers and policy makers as to how digital literacy can be fostered. Reading and producing multimodal works are supported by the Inanimate Alice community as well as its authors through a series of writing tools, practices, and examples that carefully guide the readers into becoming confident makers.

Speaking from a media arts context, Renée Turner (2011) shared her experience of the institutional practices at the Piet Zwart Institute in Rotterdam, The Netherlands. From 2010 to 2011, Turner was the Course Director of the Master of Media Design and Communication program. Currently, she is the Director of the Piet Zwart Institute. Turner discussed the "legacy of intelligence" that the Institute has fostered throughout the years and the importance that the programs put on a combination of practice-based research methodologies and critical media theory. The aim is to support graduates whose "practice can move flexibly and fluently across a rapidly expanding field that continues to incorporate a range of hybrid practices" (Piet Zwart 2013). The curriculum at the Institute is characterized by

open and free culture. Open source and free software, wikis, and other highly collaborative, non-proprietary environments are central to the creative and learning atmosphere. Prototyping is a core part of the curriculum. They work with a large network of guest lecturers and other outside participants in the education as well as public projects and lectures that form part of outreach activities. Turner's presentation put emphasis on a shared problem of programs that seek to combine theory and practice. While many of the students at the Piet Zwart Institute Media Design and Communication program were tuned into network culture, not all were experienced programmers. Regular faculty continue to struggle to reconcile divergent student backgrounds and expectations as to how media literacy, and specifically coding, should be addressed within the program. Rather than requiring prerequisite programming knowledge, the program has chosen to focus on bringing different talents into the media arts environment so that students with various artistic and expressive talents and interests can learn from and with each other. This kind of environment of experimentation fosters cultural and technological innovation, Turner argued.

Equally committed to practice as central to teaching activities was María Mencía (2011), a practitioner, teacher, and researcher from Kingston University in London (UK) who presented her 2005 project "Thinking through Practice," funded by the *Arts and Humanities Research Council* (AHRC). Mencía's work as an artist and a teacher centers on the practitioner's perspective on digital creative practices. Mencía teaches in Kingston University's Media and Cultural Studies (BA) program. In her presentation, Mencía reflected on the values and challenges of collaborative work models as well as the challenges of choosing the proper technological environment in order to fully instantiate an artistic concept. Primarily, she discussed practice-led research, in particular how the research methodologies are taught at university level and the benefits of practice-led or practice-based methods for research. In her own research as well as in her work as a teacher, prototyping and experimentation as a process of discovery are central. Mencía underscored emergent processes of learning technical skills that can accompany conceptual or theoretical insights, all reached through practice.

Carolyn Guertin (2011; The University of Texas at Arlington) offered her insights from teaching creative writing in the United States. She shared her experiences from teaching a wide range of students in creative writing and digital narrative. Many of the students, mostly at the graduate level, had poor computing

skills and came from low income families, and, therefore, access to computers had been a challenge for their development. This problem was addressed when Guertin set in place a tech-loan program to facilitate learning in her courses. Guertin described the difficulties of helping students to understand how to bring writing, visual elements, and code together. While students often could improve in each of the skills, the challenge lay primarily in teaching them the properties of multimodal literacy such as an awareness of interface and interaction and the understanding of narrative as "mapping" in a spatial sense. Guertin's observations correspond with several of the workshop presenters who each were keenly aware of the importance of multimodal literacy skills for today's communication environment. Equally important is the realization that digital literature, often multimodal in nature, can provide a fruitful field for exploring what it means to read and write, make images, code, and understand sonic expressions, etc.

Erling Björgvinsson from Malmö University and the MEDEA lab presented a course project involving editors of Pequod literary magazine, poets, interaction design masters students, and teachers. The project aimed at exploring different publication models for magazines in a changing media landscape. The result was a host of media productions evolving from a collaboration between the poets, the interaction between students and teachers, and the editors of the magazine. Björgvinsson discussed the complex negotiations of learning and communication throughout the production process. Björgvinsson summarized the outcomes of the project as a whole as knowledge gains in "how to work with multiple stakeholders and communicate between them; how to make up a language to bridge the gap between designer and client/poet; and, how meaning shifts depending on context and how materials are mixed, rather than focusing on usability issues." Similar to the project that Bouchardon reported on, this was one in which literature became a lens through which students that study other topics than writing or literature could gain important learning insights. Particularly, since the project is "live," the students gain knowledge on creative processes and aspects of particular languages of new media.

In addition to the experiences of individual teachers and pedagogues, we were interested in learning about curricular development at the university level. In particular, we sought to learn about how and for what learning purposes digital literature, digital writing, or literary arts that in some capacity use digital technology have been included in programs in cycle one or two at universities in Europe

and elsewhere in the world. The invited speakers (representing programs in the humanities and arts) in the workshop¹¹ discussed specific programs that devote substantial parts of their curriculum to digital literary arts in some form.

Scott Rettberg presented two models of integrating electronic literature into curricula: first, the New Media Studies track he developed within a literature program at the Richard Stockton College of New Jersey and, second, the broader Digital Culture program at the University of Bergen in Norway. Rettberg discussed the challenges and affordances of the two different situations: first, involving students trained within a traditional literary curriculum who sometimes had to overcome resistance to the idea that computational environments could also be literary environments and, second, involving students who were well-versed in encountering the computer as a device and social media environment but who might not have had as rich a familiarity with literary history. He also discussed differences in cultural contexts between the American and Scandinavian educational systems and their impacts on how electronic literature could be taught. Finally, he addressed the question of how to balance scholarly and theoretical work with creative and practical work in electronic literature courses.

Jerome Fletcher discussed the MA program in Performance Writing at University College Falmouth. The program offers a groundbreaking example of pedagogical collaboration between a leading arts center and a university. Arnolfini in Bristol, one of Europe's leading contemporary art and performance venues, houses the interdisciplinary MA, thus facilitating a strong focus on professional practice in an arts venue, rather than in the university. The program foregrounds research, theoretical inquiry, and self-reflective commentary, which are all embedded in practice-based teaching.

Lissa Holloway-Attaway discussed the curriculum of the Literature, Culture, and Digital Media cycle one program at Blekinge Institute of Technology (2003-2012). Like many programs offering courses in digital literature and writing, it grew out of an English department that offered courses in various literary subjects. BTH has long had a profile in Applied IT, and, therefore, over time the courses included various aspects related to media, digital technology, and the changing concept of literacy. The evaluation of English in Sweden by the then

¹¹ Scott Rettberg (University of Bergen, NO); Jerome Fletcher (University College Falmouth, UK); Lissa Holloway-Attaway (Blekinge Institute of Technology); and Jörgen Schäfer (University of Siegen, DE)

Swedish National Agency for Higher Education praised the interdisciplinary and innovative direction that the program evidenced. Answering to continuous social and cultural changes, the program was replaced by the Digital Culture and Communication program in 2012. Both programs foreground the importance of creative and critical practice as a process of learning that accompanies and fosters students' development of critical and analytical skills that are suited for digital culture. Digital literature figures in the program both as a creative practice to be studied in its own right as well as a heuristic tool to explore digital multimodal writing. As Holloway-Attaway also pointed out, the programs pushed at the very notion of what disciplinarity means in a changing university world. It became clear that English as a discipline, defined according to Swedish university regulations and traditions, could no longer sustain the need of a much broader methodological and content-based approach to contemporary culture. Consequently, the subject of Digital Culture was established at BTH during the spring of 2010, and the new cycle one program at BTH offers a Bachelor of Science in Digital Culture.

The direct outcomes from the workshop included, among others, video documentation and additional material published in the ELMCIP Anthology of European Electronic Literature and in the ELMCIP Knowledge Base. They form part of a continuously growing resource of teaching materials as well as discussions about pedagogical issues concerning digital writing. During the workshop, I worked with David Prater, the postdoctoral researcher working on the project, to interview several of the participants about their teaching experiences. We asked about particular moments of revelation or insight that have informed their thinking about pedagogy and digital literature as teachers or as researchers. The answers formed part of the material for a critical article, published in TEXT Journal of Writing and Writing Courses (Engberg and Prater 2012). The article, "Flash Points: Reading Electronic Literature as a Metaphor for Creativity," explores the possibilities suggested by the idea of the "flash point" (Hayles 2008) as a metaphor for creativity that can inform teaching models. We reflect on our own teaching practice as well as on our theoretical discussions about the selfreflexive nature of some digital literary works. The foregrounding of materiality and form in those works can be reflected back into a process of learning by reading and creating that fosters creativity and multimodal literacy skills. Furthermore, as several of the workshop participants also noted, collaboration, learning

digital media skills through experimentation and prototyping, and extended, networked creative processes point to some of the particularities of learning in and with digital media. These particularities render ineffective many traditional pedagogical models that are now used in universities, demanding instead that the teacher facilitates cooperative learning environments that also include the teacher in the learning process.

The teaching of digital literature mirrors the fundamental changes in the humanities and arts—and across the university as a whole—in response to phenomena such as globalization and digitization. At the workshop in Karlskrona, Jay David Bolter (Georgia Institute of Technology and, at the time, Guest Professor at Blekinge Institute of Technology) spoke about the profound impact on university structures and disciplines of digitization. Bolter discussed the contexts for teaching literature, arguing that there is a wide repertoire of interpretive methods: close reading, semiotic analysis, cultural studies (in various forms), and so forth. While there have been changes concerning theoretical models and a widening of study objects in literary studies to include other cultural products, overall, Bolter argued, literary studies is still very text-based. Either you study texts and write about them (as a student or a researcher), or you study other media forms as texts and then produce texts about them. Bolter foregrounded the fact that many of the teachers, practitioners, and students within the field of digital literature produce new forms or use new techniques for analysis but that this highly multimodal production is not reflective of literary studies at large, despite recent pushes for what is sometimes called digital humanities. In the US, and in Europe, text consumption and production really still is the understanding of what constitutes a literary education.

Besides literary studies, another key context for digital literature can be found in media studies, digital media, or digital culture studies. Bolter's department, now called the School of Literature, Media and Communication, is representative of many similar departments that now integrate digital literary arts. It started as a traditional English department that did service courses for the rest of Georgia Institute of Technology. Communication, literary, and film studies existed within the English program, which were later joined by a science and literature section. Finally, digital media made its mark on the department, which today has developed advanced degrees in digital media. The archaeological layers of the department Bolter describes are similar to what can be found in depart-

ments throughout Europe, the United States, and elsewhere. The issue of where the disciplinary home of digital literature can be found thus becomes apparent. Simanowski (2010, 235) argues that digital literature "is still in search of an academic discipline that understands it as its own genuine subject of research." For Bolter, the answer is to not subsume digital literature within an academic discipline but rather to integrate a series of creative forms (games, narrative, film, etc.) into digital media studies. This is similar to the current approach of departments such as my own at Blekinge Institute of Technology (where digital culture is the umbrella discipline) and the Digital Culture program of the Department of Linguistic, Literary, and Aesthetic Studies at the University of Bergen, to mention just two of the ELMCIP partners.

Interestingly, despite the massive public interest in so-called MOOCs (Massive Open Online Courses) at the time of writing this essay, almost without exception, the phenomenon of online education rarely entered into the conversations and presentations at the workshop. In the electronic literature community, writ large, there are some interesting projects and artistic interventions into online teaching. There are many experimental online alternatives to traditional education; one is the UnderAcademy College which was started by Talan Memmott, ELMCIP Co-Investigator at BTH. It was characterized in *The Chronicle of Higher Education* blog—Wired Campus—as a way to re-envision how liberal arts education is delivered. More centrally to the ELMCIP project activities, it is clear that the project partners and the digital literature teaching community internationally often represent various ways in which to re-envision, change, and challenge existing structures for education.

POLICY RECOMMENDATIONS

To conclude, on the basis of the BTH-led activities on issues related to pedagogy and digital literature, we wish to offer some recommendations for policy makers, educational institutions, and organizations, as well as for individual pedagogues and teachers. It is already clear that the teaching of digital literature in Europe, and elsewhere, happens across disciplinary boundaries and in varied contexts, from media studies, literary studies, and digital culture studies to arts, media technology, and performance. The inclusion of digital literature in university curricula serves as a lens to new methods of learning, to the inclusion of practice-based teaching models in theoretical contexts, to a broadening of what is consid-

ered media arts and creative writing, and to the wider issue of changing literacies in a digital media age. Quite clearly, these are all fundamental shifts to school and university education that are ongoing, profound, and with great impact for future settings for learning.

The networked teaching and research communities that support and disseminate digital literary arts at present can serve as a model for how interdisciplinary, international, and cross-methodological collaboration can function. Based on our research, it is clear the rigidities of national educational disciplinary structures, different in each country, nevertheless hinder the development of new curricular models. Furthermore, existing structures fail to take into account the multimodal and multidisciplinary nature of most digital work. Digital literature as a networked creative community and as a teaching community therefore exposes some of the rigidities of national constructions of university examinations, disciplinary programs, or structures for hiring and tenure that are not able to fully recognize cross-disciplinary work.

Beyond educational concerns, digital literature can also serve as a model for how to address contemporary digital culture as well as the challenges for education to address the digital skills needed for current and future job market, which the European Commission has identified as one of the key areas for Europe's 2020 agenda (an EU strategy to deliver smart, sustainable, and inclusive growth for the future). A part of the Europe 2020 strategy is *Creative Europe*, the EU program for Europe's cultural and creative sectors for 2014-2020. The program foregrounds the digital age and globalization as key factors that cultural and creative sectors must engage with. The digital shift is seen as a challenge and a tremendous opportunity which changes how "cultural goods are made, managed, disseminated, accessed, consumed and monetized." Furthermore,

this change and the continually evolving technology requires a massive adjustment across Europe by much of the cultural and creative sectors and the acquisition of new knowhow—which is currently very limited and dispersed—in terms of how to promote cultural works and engage with new audiences in the digital age ("Impact Assessment" 2011).

As Europe 2020 initiatives are shaped—such as the "Digital Agenda for Europe-European Commission" (2013) which foregrounds both digital skills as a key area for further efforts and educational efforts in Europe 2020 that emphasize the importance of digital literacy ("Agenda" 2010)—it is clear that a sophisticated

understanding of digital literacies will be needed in the coming European educational efforts to shift toward education for new skills and jobs. In the effort of procuring best practice examples, digital literature as a networked international community that spans creative and educational communities can provide key insights into the processes of teaching digital literacies at a high level. In addition, the understanding of digital media as a key creative platform, not just an arena for technical innovation, is paramount for a Europe that desires to compete in the new global economies in the coming decades. In addition, ELMCIP, as a research project and an example of how research activities and networks function in a global and networked age, can serve as a model for restructuring of universities that still remain locked into disciplinary structures that do not foster cultural innovation.

While the ELMCIP project concludes its HERA-funded activities in June 2013, the researchers will continue to share and build on the knowledge and models that we have mapped out as well as on our own pedagogical practice. Among the planned activities is participation in the E-Poetry festival in London, June 2013, during which Engberg and Memmott will both present at a special seminar on digital literature and pedagogy. Several of the members of the ELMCIP project are also members of the Nordic Digital Culture Network which started its activities in 2009. It is primarily devoted to teaching and pedagogy through organizing summer seminars for students, sharing teaching resources, and facilitating teacher and student exchanges among the partner universities. Some researchers in the ELMCIP project are also active as teachers in the Erasmus European Digital Literature Intensive Program at the Complutense University in Madrid, Spain. There are also several other networked activities in the realm of teaching and pedagogy among the ELMCIP partners, connecting to other parties in Europe and the rest of the world. The ELMCIP Knowledge Base will continue to be a resource that documents and sustains these networks beyond the HERA grant activities.

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CREATIVITY AND INNOVATION IN PRACTICE

E-LITERATURE AND NEW MEDIA ART JANEZ STREHOVEC

The key focus for the Slovenian investigator of the ELMCIP research project was directed toward conducting fundamental research focused on the following areas:

- E-literature and algorithmic culture;
- The reading of e-literary texts—introducing the concept of text as a ride, which directs one toward a more complex experience of texts, including corporeal arrangements;
- E-literature and new cultural turns—in the sense of a turn away from discourse and decontextualized information theory to the field of biopolitics, interface culture, and the body;
- E-literature and the social (including economic implications).

Through this work, as well as through the arguments of Domenico Quaranta (2011) on the new media art world, the term "e-literary world" is introduced to refer to the particular social context in which e-literature is placed. Following these arguments, it is an existential requirement that the e-literary world, like other artistic groupings, is seen to consist of appropriate institutions, festivals, journals, book series, creative platforms, critics, theoreticians, educational courses, and, perhaps most importantly, a readership. Only a small number of e-literary works have a chance of being noticed outside of this field.

The common denominator of this research was the focus on an expanded concept of e-literature, which includes the field's interactions with new media art and digital, software, interface, DJ, VJ, and algorithmic cultures. An additional requirement was the analysis of e-literary text as an area that includes the play of verbal and nonverbal signifiers. Although it often seems that autopoiesis and self-reference have an important role in e-literature, this practice is distinctly contextualized and embedded in contemporary society, which is why the term "e-literary service" is introduced in order to define e-literature's performative and algorithmic nature. This implies a link with the service economy of post-industrial society. In e-literature, but also in the fields of contemporary and new media

art, a number of fundamental things are happening at the intersection of different media, artistic practices, disciplines, genres, and forms (the importance of the "in-between" is also increasing). It is therefore no coincidence that the focus of the Slovenian ELMCIP seminar, in Ljubljana (September 22 and 23, 2011), was on *E-Literature and New Media Art*.

Both new media art and e-literature are linked to contemporary technologies and media: both employ algorithms, programmed media, interfaces, and connectivity. Along with e-literature, the existential criterion of a growing number of movements in new media art is to be "born digital." Both fields are important for developing an understanding of new media literacy in the sense that they inform one's ability to navigate and control new media content and the basic orientation of the individual in mixed and augmented realities. A number of e-literary works direct us to the question of what is happening to the letter and the word in the age of new media communications. The experimental approach associated with practice in this domain is analytical and "atomic," focused on the medium's constituent units.

The understanding of both fields is by no means exhausted through engagement with their technological and media foundations, i.e. with the fact that everything revolves around interfaces and software. They also deploy procedures that are directed towards inventing new algorithms and warning that high technology is not flawless. Noise, glitch, and the malfunctioning of the high-tech are things that are also of interest (e.g. Jodi's projects in net.art). Like new media art, e-literature is also connective and contextualized. Its interfaces presuppose embodiment and encourage complex forms of reading. Social critique and feminist discourse also belong to the circle of a comprehensive understanding of e-literature, while a strong connection between e-literature and gameplay is also evident. It is precisely this movement towards gameplay, stimulated by the concepts of a number of theoreticians, from Espen Aarseth to Noah Wardrip-Fruin (cybertext and textual instrument, respectively), that is specific to e-literature, by contrast to new media art in which gameplay is not within its ontology.

The ELMCIP seminar was held in Slovenia in a context where new media art is well developed and present, particularly in the movements that presuppose

a critique of established science, connections with new technologies, ¹² activism, and performance. ¹³ On the other hand, this is a cultural context which coexists with highly conservative views on literature-as-we-know-it (e.g. the printed text), which national cultural policy considers as a constituent of the nation in the form of this simple syllogism:

Poets constitute Slovenian Nation She is a poet She constitutes Slovenian Nation

There is probably no other country in the world where it would be easier to publish a book of poetry than in Slovenia. Authors who receive fees and annual grants for their slightly inventive pieces greatly exceed the number of readers. The state sponsors translations and printing costs for books of poetry by Slovenian poets at foreign publishing houses, arguing that this promotes the nation, even though the countries in which they are launching Slovenian authors have no greater interest in the poetry of their own local authors. A comprehensive apparatus of theory, media, and criticism is focused on printed literature. The curricula at different levels of education also include Slovenian poetry. The field of e-literature, on the other hand, is completely marginalized. Amongst these marginalized authors, two who deserve mention are Jaka Železnikar and Teo Spiller.

The only way that an interest in e-literature might be stimulated in Slovenia would be if the national, cultural, and educational policy could devote more attention to the field, which is highly unlikely since the field does not function well in terms of promoting national identity and national languages. English, as the *lingua franca* of the globalized world, is also the main language of e-literature. E-literature is not very appropriate for the glorifying of national identity, which is why only a few individuals in Slovenia are devoting themselves to its practice and theory. Likewise, it is of no interest to the media. If one inquires of editors why they are not reporting on events in this field, they would reply that they do not have any reporters who could cover such activity professionally—hence a report

¹² Amongst them are aerospace technologies, presented and deployed in Cultural Centre of European Space Technologies (KSEVT) in Vitanje and postgravity art projects by Miha Turšič and Dragan Živadinov.

 $^{13\ {\}rm This}$ includes the most extreme forms of body manipulation and augmentation involved in program of Gallery Kapelica, Ljubljana.

on the Ljubljana ELMCIP seminar was written for the national daily newspaper *Delo* by one of its participants.

For the Ljubljana event, which was prepared as a small conference, seventeen peer-reviewed papers by theoreticians and practitioners from eleven countries were presented. The concluding acts were the readings and performances by seven authors: John Cayley, Scott Rettberg, Philippe Bootz, Alexandra Saemmer, Simon Biggs, Talan Memmott, and Jaka Železnikar (while Maria Mencía, and Teo Spiller addressed their e-literary pieces in their papers).

The following paper presentations were given, listed in order below:

- Roberto Simanowski, "Code, Interpretation, Avant-garde"
- John Cayley, "Is there a Message in this Medium? The Materiality of Language in the [Sound and] Light of New Media"
- Alexandra Saemmer, "Reflections on the Iconicity of Digital Texts"
- Philippe Bootz, "Programmed Digital Poetry: a Poetry of the Apparatus; Media Art?"
- Beat Suter, "Big Brother Really is Watching You: Literature in Mobile Dataspace"
- Giovanna di Rosario, "Poetry Confronting Digital Media"
- Markku Eskelinen, "The Four Corners of the E-Lit world. Textual Instruments, Operational Logics, Wetware Studies and Cybertext Poetics"
- Saskia Korsten, "Reversed Remediation: A Critical Display of the Workings of Media in Art"
- Narvika Bovcon, "Literary Aspects of the New Media Art Works by Jaka Železnikar and Srečo Dragan"
- Aleš Vaupotič, "Do the Domains of Literature and New Media Art Intersect? The Cases of Sonnetoid Web Projects by Vuk Ćosić and Teo Spiller"
- Maja Murnik, "The Extensions of the Body in New Media Art"
- Bojan Anđelković, "[Techno]dispositifes in Contemporary Art Practice: Fifty-year Theater Performance *Noordung* 1995-2045: by Dragan Živadinov"
- Dubravka Đurić, "Acoustic and Visual Imagination in Poetry from Neo-Avantgarde to New Media Poetry in Yugoslav and Post-Yugoslav Poetry"
- Janez Strehovec, "E-literature and the New Social Paradigms"
- Maria Mencía, "New Media Art Poetry: A Textural Surface"

- Patricia Gouveia, "Why Digital Games and Networks Can Help Us to Change Reality and Generate Concrete Changes in Social Environments"
- Teo Spiller, "New Media Textuality and Semiotics"

Even a fleeting glance at the papers presented reveals that they covered a very broad field which, in addition to e-literary theory, also included video games, the phenomenology of the body in performance art, historical examples of experimental writing in the former Yugoslavia, new social paradigms, and the theories of new media art. This was connected with the theme of the conference, which tried to reflect the expanded concept of textuality today in connection with new cultural turns. Four of the papers presented at the conference engaged new media art: those of Maja Murnik, Beat Suter, Saskia Korsten, and Bojan Anđelković. These papers were subsequently published in the Slovenian journals *Maska* and *Dialogi*. A selection of a further six papers was published in the special section of academic journal *Primerjalna književnost* 36.1 (2013), with Slovenian authors published in Slovenian and the texts by foreign theoreticians in English. As the section editor, the author of this report also prepared an introduction for that publication, which was published in both languages.

What were the main points amongst the seminar's papers that stimulated the most intensive discussion and comments with the audience? Roberto Simanowski's paper discussed the issue of text and narratives in transmedial installations with respect to the installation work *Listening Post* by Mark Hansen and Ben Rubin (which transforms incoming streams of text data from chat room conversations into an audiovisual sculpture) as well as *Bit.Falls* by Julius Popp (which deploys water as a carrier of cultural information that is only perceptible for a split second and then disappears again). Simanowski addressed the projects' perception and raised the following questions: to what extent do visitors of *Listening Post* and *Bit.Falls* become readers and coauthors of the text snippets? To what extent do these installations, by dissolving text into a sonic and visual event, change from reading to watching, from linguistic to visual art, and thus signify the "cannibalization" of language and the shift to voyeurism and sensation? To what extent are these presentations of Internet data reflections of contemporary society

¹⁴ Anđelković's paper was published in *Maska* 26 (2011): 143-144. Murnik's paper will be published in *Dialogi* 49 (2013): 3-4. Korsten's and Suter's papers will be published in *Maska*, 28 (2013): 155-156.

and culture and responses to the coexistence of conflicting concepts, discourses, and cultures as characteristic of (post)modern life?

John Cayley's basic argument was that language must be embodied, and thus its particular medium is—literally, ontologically—the matter, the flesh, the materiality of any message that it articulates. The media signify, meaning that the matter in which the message is embodied also traces differences that were already what we have come to call "writing" in a poststructuralist, Derridean sense: that of grammatological practices. Cayley has argued that the message of the medium literally consumes the materiality of language: its own body, flesh of its flesh. But this cannibalism would only be literal—and thus taboo and truly terrifying—if McLuhan's copula were ontological. The consequences of recognizing that messages are only ever media, that they cannot otherwise be—cannot matter or be—have therefore not been sufficiently addressed.

The materiality of language was also addressed by Alexandra Saemmer, who raised the question of the iconicity of the linguistic sign in digital texts. The starting point of her paper was that, in digital technology, a text is primarily characterized by its animation and "manipulability," and it is therefore commonplace to observe that the digital text has become an *image*. She argued that we should take a closer look at the specificities of animated and "manipulable" texts and consider them instead as "pluricode couplings," which involve two or more semiotic systems within the same stimulus. Her paper discussed such couplings between linguistic text and movement in the first part and between linguistic text and manipulation gestures in the second part.

This semiotic approach was distinctive in Philippe Bootz's paper, which questioned whether programmed digital poetry can be understood as media poetry in terms of Eduardo Kac's practice and theory, which broadens the digital textual poetry to video poetry, holo-poetry, bio-poetry, and programmed digital poetry. Bootz referred to the two communicational definitions of media: media as a vehicle for communication and media as a semiotic vector. He demonstrated that the former understanding of media is unable to account for the specificity of each poetic modality and that accounting for their techno-textual features is required. Bootz also drew upon his piece *Passage*, which requires both narrow reading and meta-reading in order to apprehend the full representation.

E-literature in mobile data space was discussed in Beat Suter's paper, which dealt with e-literary projects that are read by employing mobile devices.

Rather than drawing upon the trendy use of literature for mobile devices, such as e-books and cell phone novels, this paper referred to literary projects, such as *Wardive*, that experiment with urban locales, mobile data, and new technologies to produce locative and adaptive literature. Employing the Global Positioning System (GPS), along with mobile and WiFi networks, new interactive experiences of the urban environment can emerge. The environment can thus be perceived as a data space that provides new material for literary and artistic experiments. Through these means, real space is accurately measured and rendered tangible as data space, enabling artists to work with locative adaptive media.

Giovanna di Rosario argued that e-poetry encompasses a wide range of different works, proposing that e-poetry is far more than just one creative form. On the other hand, the interest of e-poetry seems to reside in the diversity that e-poetry can offer to its reader. This claim of diversity was at play in her paper, which dealt with close-reading works by three authors of e-poetry.

Markku Eskelinen considered e-literature as a field in question—even as a flat world infested with wild rumors, speculations, and warnings concerning the dangers of going too far in directions where e-literature as we know it may ultimately turn into something completely different, threatening the validity of our current conceptualizations. Using, and eventually abandoning, this metaphor, Eskelinen proposed a quick review of the four corners of this world as typified by the transformative powers of cybertext poetics, wetware studies, operational logics, and textual instruments. From this perspective, e-literature looks very much like any other literature threatened by new media and other arts, the social and physical sciences, gaming and play, and, last but not least, stagnation (geritextuality).

Saskia Korsten discussed reversed remediation as a counter-mechanism to Bolter's and Grusin's remediation (defined as a historical desire for immediacy). Following McLuhan's fear of the narcotic state, which the user of a medium can enter when becoming a closed system with the medium, reversed remediation offers a chance to wake up the viewer. It creates a state of critical awareness about how media shape one's perception of the world. Reversed remediation works counter to remediation mechanisms in the sense that it makes the media visible instead of transparent. It makes critical awareness possible because it lays bare the workings of media instead of obfuscating them. It goes beyond the reflectivity proposed by Bolter and Gromala by not reflecting on the medium from the outside but rather

reflecting from within the medium, in order to improve its formal workings without critically examining its effect on the way one perceives the world.

While Narvika Bovcon's and Aleš Vaupotič's papers analyzed the contributions of Slovenian authors to the field of e-literature and the textuality shaped by new media art projects, two other Slovenian theoreticians, Maja Murnik and Bojan Andjelković, discussed some examples of Slovenian new media art (such as projects by Janez Janša and Dragan Živadinov) that broaden the limits of recent media art toward techno-shaped performance and "postgravity art." ¹⁵

Last but not least, the seminar enabled, for the first time, an intensive meeting and gathering of all the Slovenian participants in the field. As a result, knowledge of the field will be augmented through publications in the previously mentioned journals.

What was the common denominator of the papers presented at the Ljubljana seminar? This is by no means a simple question to answer. E-literature is an experimental field in the making, as is the case for new media art, and knowledge of its movements, tendencies, and paradigms is important in defining the horizons of the field. In new media art, e-literature's social (and political) implications are even more radicalized. It is hard to imagine e-literature questioning the ontological structure of its field as radically as certain movements in new media art, which demand the total abandonment of artistic function and value as we know it in favor of utility—even as an intervention in life itself. Such a direction is demonstrated by the practice of so-called device art and, in particular, by a project as radical as the "Transborder Immigrant Tool," created by the Electronic Disturbance Theater 2.0 (EDT; 2007-2008), which aims at re-appropriating widely available technologies to be used as a form of humanitarian aid. This "tool" consists of an inexpensive GPS cell phone and custom software. The software directs the user of the phone toward the nearest aid site, be that water, first aid, or law enforcement, along with other contextual navigational information. This is accomplished by a Java-based application, written by Brett Stalbaum, which accesses the phone's ability to receive GPS information without needing to send out data that might allow the user to be located or for network connectivity. The "Transbor-

¹⁵ In "Postgravity Art," Živadinov defined postgravity art as all art created in zero gravity conditions. These new living conditions will create systems that we are not yet aware of. Postgravity art is not a stylistic formation and does not intend to become that either. http://elmcip.net/sites/default/files/attachments/criticalwriting/31079708-50-topics.pdf.

der Immigrant Tool" can be seen as part of a larger shift from tactical media to tactical bio-politics. The EDT seeks to engage the political potential opened up by technologies which can serve to improve people's lives directly, including medical technologies and systems such as GPS.

On the contrary, e-literature, in its extreme forms, primarily revolutionizes language itself, redefining narrative, establishing a laboratory for the experiencing of the letter and the word under new media conditions (e.g. the practice of e-poetry generators and John Cayley's "writing to be found" with Google). E-literature also challenges reading by focusing on arrangements of words in a mode of illegibility (e.g. Jim Rosenberg's Diagrams series). However, with regard to experiencing new forms of social engagement, it is less radical than new media art. An example of a piece that expands the area of e-literature to the field of mobile and locative media is René Bauer's and Beat Suter's "AndOrDada" (2008), which is based on an Android application for mobile phones, prepared with the intention of generating text depending on the user's passing through locations. The application produces text-under-transformation, depending on the user's path (walking, driving), when the input captured by wide local area network communications at a certain location influences the flow of the text and modifies it. In short, this project expands the area of e-literature by opening itself up to direct influences from the environment. However, it does not appear to question the field itself, in relation to the extra-textual and extra-artistic realities, as radically as the EDT project.

Nevertheless, what lay behind the discussions at the Ljubljana seminar was the finding that e-literary content is becoming increasingly contextualized, performative, and embodied. This suggests that matters of significant import are taking place in a field that is abandoning the classic cyberpunk and post-human perspective. This perspective is founded on the Cartesianism and Cyberplatonism that can be found (in the case of literary cyberpunk) in novels such as Gibson's *Neuromancer* (1986) and (in the case of several theories on the posthuman) in the viewpoint that the posthuman condition blurs the border between embodiment and the cybernetic, between the biological and simulation. Such notions that are beyond the findings of contemporary humanities and social sciences as well as the practice of today's performance art are based on classical information theory, in that the specificity of information is determined by message length, complexity, and signal integrity. By contrast, issues

concerning the material and bodily contexts in which the information is embedded are pushed aside as unimportant.

New media art is most certainly a field that assists in the understanding of some novel directions in e-literature, particularly those that are expanding the area of hypertext to new areas of textuality, shaped by new media. A discussion of the fundamental paradigms of new media art suggests that we are functioning as contemporaries of tendencies and movements that are leading towards alternative politics, activism, hacktivism, and, potentially, the alternative organization of life in terms of current theoretical paradigm shifts. Rather than through events of the autopoietic systems of contemporary art, changes in this field are influenced by science, new technologies, new concepts of politics, and activism. In addition to the "Transborder Immigrant Tool," two historical examples of new media art are of interest: the Slovenian artist Marko Peljhan's "Makrolab" (first presented to the public at Documenta X [1997]) and the Critical Art Ensemble's project "Free Range Grain" (2003-2004).

Marko Peljhan's "Makrolab" (1997) is arranged as a laboratory, based on the model of the Russian MIR space-station, in order to tap communication data streams emanating from police radio and satellite telephones. This arouses in equal measure the suspicion of official bodies and the curiosity of professional surveillance institutions. Peljhan worked on the "Makrolab" as a project that focuses on telecommunications, migrations, and weather systems research at the intersection of art and science, from 1997 to 2007. "Makrolab" is also a creative artistic platform that enables other artists and activists to develop their projects with it, presupposing the role of the artist as the one who prepares only a creative platform, scheme, or instrument. Critical Art Ensemble's (CAE) project "Free Range Grain" (2003-2004) was created as a live, performative action that used basic molecular biology techniques to test for genetically modified food available in the global food trade. CAE, in collaboration with Beatriz da Costa and Shyhshiun Shyu, constructed a portable, public laboratory to test foods that others deemed suspicious of "contamination" due to genetic modification. Members of the audience were invited to bring to the gallery pieces of food that they found suspect, for whatever reason, and the artists tested them over a seventy-two hour period to see if their suspicions were justified. The point of this project was that science should not be left only to scientists, and that by using an artistic apparatus and artistic non-profit approach, it is possible to establish a framework for more

responsible research. This is similar to the intention of the "Transborder Immigrant Tool," since both devices were developed in an artistic context and could perform a role that seeks to intervene in politics and national institutions that are protecting the integrity of the individual.

In the field of new media art, we are also contemporaries of a number of practices that are critical of broader social issues and of contemporary technological advances. An important direction here is the demonstration of the malfunctioning of the high-tech. Such a direction, in terms of broader social criticism, is much less noticeable in the case of e-literature. A more important role, in this context, is held only by feminist hypertext (e.g. Shelley Jackson) and a few rare pieces that deal with a critique of high-tech advances (especially of their promises) and with their malfunctioning (e.g. Eugenio Tisselli's "Degenerative" [2005]).

In conclusion, let us establish a few findings that are essential for both fields:

- New media art and e-literature are connected by smart technologies, new media, and new areas of presentation (beyond the gallery's white cube and the printed book—for example, in clubs and festivals) as well as new dissemination possibilities (the web, mobile media, etc.).
- Both place research value in the foreground (and not that of the cult, aesthetic, or exhibition); e-literature focuses on the fate of the letter, word, and narrative in the age of new media.
- Both new media and e-literature fields are closely associated with theory, where the participation between creators and theoreticians is essential; a good statement, which an author attaches to a project, is "conditio sine qua non" for successfully addressing an audience. Consequently, one of the conditions for the creators is that they are familiar with the theoretical paradigms that define their fields. In both fields, festivals and conferences alike are platforms at which theoreticians and creators (artists, e-writers) meet.
- Even in a quantitative sense, the surplus of theory over artistic and, especially, e-literary production is not a negative and disruptive affair. E-literature as practice is one thing, while the theory of it is another. Theory creates its own subject of knowledge, which is not identical to the "artistic/literary object." Precisely due to this pioneering character, a reference to e-literary and new media works of art is ap-

- propriate in various theoretical discussions of new media and the individual's experience in an augmented reality.
- Both fields are focused on performances and services rather than on finished works. Their user is directed to a problem-solving and goaloriented activity; he/she can also interfere with e-literary projects, defined as processes, in real time. Thus, both fields belong to the broader context of algorithmic culture.
- Essential for production in both fields are artistic and e-literary platforms and cooperation based on networking. The concept of the artist as genius has definitely been surpassed. Furthermore, in this field, the criterion of national literature functions only to a limited extent. Particularly, in the case of projects with collective authorship, one can come across coauthors from different countries. English as the *lingua franca* of the globalized world has a prevailing role in e-literature; only in countries with a rich e-literature tradition (e.g. Brazil and France) do national languages hold a significant role.
- Projects of new media art and e-literature are also useful for educating people about new media (digital) literacy as they expand the knowledge of the media and its behavior beyond the routine of everyday practices.
- A significant role in the reception, perception, and familiarization of these works is given to the hybrid viewer-reader-listener as the user, associated with the ontological structure of these projects and performances, which often have the nature of schematic structures (e.g. the textual instrument in e-literature) that invite users (or other artists) to their individualized concretizations. The most competent users (in the case of e-literature, also readers) are experts (including programmers) and authors who have a certain surplus of knowledge in comparison with traditional artistic and literary audiences.
- Characteristic of both fields is a great uncertainty, or instantaneousness, resulting from the difficulty of their definition and subsequent weak institutionalization. Each project blurs the boundaries of an individual field, and authors are required to invent new genres and redefine the boundaries of their fields.
- Neither field has developed critique in the form that we are familiar with in conventional literature and art. Critique, as in the case of

printed literature, is replaced by precise descriptions and presentations of individual works or by these projects appearing as the subject of a broader theoretical analysis that is focused on the conceptualization of certain paradigms. It seems as though less important and unsuccessful works are being ignored, while the important ones (those that invent their own genre) deserve wider attention. Particularly, in the e-literary field, greater critique should be given to works that burn out in a spectacle, exaggerate the use of special effects, and deploy a highly abstract and *McDonaldized* concept of language.

The Slovenian example of a highly conservative policy, founded on traditionalist views of the role of literature as a tool of national promotion, has already been mentioned. Let us now stress that we see a promising task for European cultural policy and the policy in the field of national education in facilitating a dialogue between the fields of new media art and e-literature and in promoting the institutionalization of theory and education in both fields. It is of special importance that literary studies be complemented with e-literary study and that e-literary criticism be included in education as new media literacy, since these projects demonstrate especially well the fate of language, text, and reading under contemporary new media conditions. Furthermore, it is important to educate and stimulate an emerging audience that is approaching this field as the geeks of digital, software, DJ, and VJ cultures, to make contact with contemporary creativity through e-literature projects.

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CREATIVITY AND INNOVATION IN PRACTICE

POETICS IN DIGITAL COMMUNITIES AND IN DIGITAL LITERATURE

YRA VAN DIJK

Light and opposed to existing art worlds, histories, and concepts. In this project we have explored the ambivalent position of the new, which has to find a place for itself in the old. Like authors who work in which their works can be credentialed and valued, economically and symbolically.

Three different approaches were used to consider the question of digital poetics: institutional, ethnographic, and textual. The conclusions that were drawn are presented in the first four sections of this chapter. The first two sections are centered around institutional questions: what is it that builds and binds communities of digital artists? Do artists collaborate, and how do they reflect on these collaborations? Can we say that communities are bound by a common poetics? Sections three and four concentrate on works from a textual angle. Emergent in the course of the project was a clear image of a fast developing art form that is characterized by a tendency towards affect and embodiment. On the other hand, the question of poetics led to a critical engagement with the works. Conclusions will be presented in the fifth and last section.

THE INSTITUTIONAL POSITION OF DIGITAL LITERATURE

Contrary to what one might think, institutions play an important role in the production, preservation, and funding of electronic literature. Digital literature is rarely "sold" like print literature, and its producers have to find alternative funding to be able to produce work. Due to the absence of traditional gate-watch-

¹⁶ In a presentation on "Writing Becomes Eclectric: A Symposium on Electronic Literature," UCSD, January 27th 2011.

ers like publishers and newspaper critics, the function of selection, distribution, and reception of this work has been taken over partly by anthologies, reviews, and criticism, often produced in an academic climate (see Saemmer 2012, 83). Artists need the necessary channels for preservation, distribution, and critical evaluation of the work, channels that have the power to create "cultural capital." Even the production of work often takes place in an academic or institutional setting. Literary festivals, conferences, and workshops form temporary communities in which planned collaboration takes place. This section presents conclusions about issues of institutionalized and planned collaboration and its effects on the production, the presentation, and the content of digital literature. How do we get knowledge of the collaboration; what were the original intentions; and what is the intended or unintended result?

The focus of the project was on institutionally funded projects based on collaboration. Although digital arts may seem so experimental that artists operate far from traditional institutions, they are partly dependent on academia and on government-funded projects. In these instances, the community of artists that produces a work has come into being in an institutional context (a festival, a workshop, a project). Although a book-project on collaboration (*Collaborative Futures*) stresses the importance of "autonomy," collaboration in digital art is not necessarily produced in autonomy from governmental or other institutions ("Field of Cultural Production" 2010).

This seems to be a rather paradoxical situation, since collaborations in twentieth century art and literature were mostly born from a discontent with mainstream and canonical art and its institutions (Green 2001, x). The general conception of collaboration is strongly connected with political action or even anarchy (Lind 2007, 183). In digital literature we find some political collaborations, like the literary community "Circulars" that was formed with the explicit intention to protest the invasion of Iraq in 2003, stating that "poets, artists and critics respond to the U.S. Global policy." The supposed political quality of collaborations is generally less obvious in most literary digital communities (van Dijk 2012b).

Not only on an institutional or political level, transformations seem to have occurred in the cultural value of collaboration: the idea of authorship has altered, too. In visual arts of the twentieth century, collaboration was a "strategic but almost terminal means of shedding traditional signs of unwanted artistic per-

sonality" (Green 2001, xiii). This, too, seems to have changed in the field of digital literature: collaborative authorship is no longer an expression of the rejection of traditional "artistic personality."

A first effect we see of collaboration is on the paratext (van Dijk 2014, unpublished), the frame that presents a work, in which the circumstances of collaboration are described (Genette 1997, 1). The analysis of both text and paratext, and the ways in which they merge, has told us more about the intended and unintended effects of collaboration. Firstly, the analysis of paratexts of digital literature has demonstrated a strong focus on appropriation of the work by author(s). The authors' influence on paratexts has grown considerably as compared to print literature (van Dijk 2014, unpublished). Although critics point out that the "romantic" author, the inspired genius, has been replaced by new models of authorship in new media (Manovich 2002), the author seems to be re-entering through the back door. More than in print work, he, she, or they frame their own work. Often the author is the "publisher" of her/his own work, maintaining a personal website on which value-enhancing descriptions of the work are to be found, sometimes written by the author "autographically." He/She performs as her/his own agent as well, "selling" the work on blogs, in personal correspondences, conferences, and in performances (van Dijk 2014, unpublished). The digital author, in short, is her/his own editor, publisher, and agent, taking care of framing, publicity, and canonization.

Another transformation in digital paratexts is to be found on the level of changed quantity and quality. As far as quantity goes, it is not that the *amount* of paratexts has grown in digital literature, but the availability and the closeness to the text has been augmented. In the print era there were physical steps to be taken between reading a text and reading the library catalog description of that text, for example. Digitally, these paratexts are only a few mouse clicks away—like the source code, which gives information on authorial intention and may be incorporated into the category of "paratexts." The Internet has partly taken over the role that social spaces and institutions play in print literature. A further consequence of this proximity of text and paratext is that a merging seems to be taking place between the two, as Lunenfeld (1999, 14) argued and as Stewart (2010, 72) argued with respect to the digital work *Inanimate Alice*.

As far as institutional collaborations go, the consequence of this visibility of the paratext is that the circumstances of the production of a collaborative work are very conspicuous. In terms of institutional collaboration, this may

add "symbolic capital" to a text and establish a hierarchy within the domain of digital texts. As has been pointed out by Simon Biggs (2010, 345), funding institutions have "the potential to directly impact on how this work is produced, maintained and disseminated." This also confirms what Baetens and Van Looy (2008) remarked on e-poetry specifically, that, though delocalized, it has rapidly developed a closed canon with a relatively small number of gatekeepers: ". . . in the age of globalization, it seems that the mechanisms of power, i.e. of selection, promotion, and exclusion, are strengthened rather than weakened."

A third and final influence of the mode of production is on the content of the work. Collaboration in modern and postmodern art could be presented as the work of art itself (Green 2001, xii): the event of the collaboration takes the place of the object produced. Similarly, institutional collaborative authorship, which is part of the creative process, ends up becoming an important part of the work. In the case of Collaborative Futures, for example, not only the paratext emphasized collaboration, but the text itself was about collaboration. This implies that the text is its own paratext—it describes what it is and in which tradition of digital and non-digital cooperation it operates. It is extremely selfreflexive, and the authors are aware of it. The authors of Collaborative Futures, which is a book publication, too, warn against idealization of collaboration: "Online communities are not organized as democracies" ("Field of Cultural Production" 2010, 44). Hierarchies are organized along the lines of contribution: who works hardest is the most important. An important issue the authors tackle is the risk of "process fetishism": "there is a risk of making a fetish of process over product, of the act of collaboration over the artifact that results from it" ("Field of Cultural Production" 2010, 45).

This critical stance is taken up by the curators of the NY exhibition, quoted in the book: they want to analyze the idealization of participation and demonstrate that power does not necessarily always come from above. We have to be aware that we have not deconstructed power but have only relocalized it. Participation, therefore, can turn into a vector for dominant ideologies as easily as it can liberate: "participation plagues us" ("Field of Cultural Production" 2010, 48): governments and "cultural entrepreneurs" can't get enough of it. The authors also reflect on the dubious nature of "autonomy." It is worthwhile to be suspicious of those people and projects who claim to be autonomous ("Field of Cultural Production" 2010, 135), but the authors do not reflect on the irony that digital

collaboration ends up in a printed, and even reprinted, book: the product seems to be as important as the event.

A second case, the Dutch project *Poetry on the Screen*, taught us that collaboration funded by arts councils may be successful: some of the work produced there is "canonized" (van Dijk 2012b). Another conclusion is that labor in collaboration is often strictly divided between different disciplines, like literary writing and new media design (see Hayles, "Time of Digital Poetry"). The work *Smeekbede*, for example, is an animation of paper cuttings, on the rhythm of a poem performed by the author's voice. However pretty the result is, the styles of the poet and the designers stay separate, and the video is presented as a supplement to the text: emphasis is on craftsmanship, technical mastery, and not so much on individual expression.

During the ELMCIP Amsterdam seminar "Digital Poetics in the Present" (2011), the collaborative work "Welcome Stranger" by K. Michel and Dirk Vis was performed. As the authors explained, their intention was to design a work for Schiphol Airport, which has since then indeed shown it. The work is an animation in which letters in white circles dance around, forming words in two rows in the middle, then changing to form new words. The text consists of the names for the game "musical chairs" in different languages: German (journey to Jerusalem), Polish (hot chairs), French (dancing chairs), etc. Obviously, the work is iconic; the words perform the game themselves. It has some edge to it since there is always too little room in this game, and one person is "left out"—which is exactly what was happening to strangers under the Dutch right-wing government in the 2010s.

Collaboration in visual art affected the content of the artwork and led to alternative authorial identities. Here, on the contrary, we do not seem to encounter a displacement of stable, autonomous subjects. In this kind of institutionally initiated collaboration, we should take into account that it is not necessarily an interdisciplinary collaboration. Professionals from different disciplines may work separately on a text, much as in the manuscript era or in visual arts, where "master craftsmen" (Green 2001, xv) may be needed to assist in the creation of the actual work. The difference is that there is less of a hierarchy between "art" and "craft" in the digital literary creations under scrutiny here.

The overall conclusion was that the goals and the creative energies of the community are, to an important extent, concerned with the description, the establishment, and the rules of the community itself. The function of digital

collaboration therefore resembles what Jakobson in his communication theory called the "phatic" function—which performs primarily a social task: the confirmation that communication is in progress. I would propose to create an analogous category for this self-reflexive collaboration: phatic collaboration. "Phatic" is Greek for "spoken," or, "I speak," so "phatic collaboration" would mean collaboration that we talk about.

Not all collaborative works are phatic, obviously. What we did see, however, is that the content of many collaborative works is often indirectly concerned with polyphony, interdiscursivity, or interculturality. Secondly, again contrary to some of the earlier experiments in the 1960s and 70s with collaboration in visual art, emphasis often was on the material result of the collaboration, rather than on the process alone. A third conclusion is that contemporary collaboration is not always a political or poetical choice: the necessity to cooperate may be a consequence of the software used, which demands a technological knowhow in addition to literary knowhow: often authors and new media artists/engineers need to join forces to make a work. In that respect, contemporary online literary collaboration resembles medieval collaboration in book-making. This technically "forced" collaboration has always been present in visual arts, where artists collaborate with craftsmen. From this follows the fact that collaboration in digital literature generally implies interdisciplinarity.

The last and most important inference is that, contrary to modernist art and literature, in digital literature, collaboration is not necessarily marginal. It is rather institutional and canonical even at the moment of conception. Indirectly, all the cases here are made possible by government or academic funding. Parallel to the absence of anarchy, we do not see an explicit desire to shed the artist as a central figure. Generally, the avant-garde framework that is used to analyze collaboration in visual arts in the twentieth century does not seem to apply.

After this analysis of top-down organized collaborations, we next analyzed a bottom-up community of digital authors, in order to see whether similar transformations have taken place there.

A COMMUNITY OF DIGITAL LITERATURE

While there is a wealth of research material on large social networking websites like Facebook, the function of small creative communities on the Internet largely remains to be analyzed. How do these communities form and interact?

We might expect similarities with the way communities of print authors were constituted. They tended to form around an institution, often a journal, or a bookstore, or a publisher, and were often characterized by a common poetics, understood here as a shared set of norms on what the form and content of their work should be. The function of this shared idea on literature had, apart from a creative effect, also a strategic and partly economical effect: it was a joint effort to prepare the readers and critics for a new kind of literature, to attract attention and thus to sell work.

How are these functions performed in a digital community that produces digital literature? What is produced in such a community seems to be more than only creative works: there is a production of an institutional framework, too. Since editors, bookstores, and professional critics are largely absent in this field, the Internet community seems to have taken over the functions that in print were performed by institutions like academic criticism, literary venues, circles and societies, editors and journals, or bookstores. Digital authors have to criticize, judge, and sell their own work in the absence of people to do it for them (Rettberg 2009). Apart from the social function of such networks, and the importance of the production of works, an important function appears to be the production of a critical and institutional framework within the community.

We have focused on the exchanges in a specific international digital community over a determined period of time: interactive fiction (IF) writers between 2001 and 2004, who communicated intensively on the discussion list *rec.arts.int-fiction*. Additionally, the way in which the contributors have archived their own discussions was considered telling self-descriptive metadata. In archiving different strata of the discussion, the contributors have mapped some of the discourse space. This implicit self-presentation is combined with explicit self-description in some of the discussion strands.

A multidisciplinary approach was used, since we wanted to know how in *sociological terms* this digital authors' community or rather "network" functions and how it related to other *literary* communities and their production of conceptions, works, ideas, or exchanges. This is why the data, the archive of online

exchanges between members of the network, were also analyzed on the level of self-definition and meta-statements.

For the definition of a community, Latour's actor-network theory was used, thus talking about a network rather than a community. This actor-network theory emphasizes the dynamic character of the network—it is more a process than a product: "groupings have constantly to be made, or remade, and during this creation or recreation the group-makers leave behind many traces that can be used as data by the informer" (Latour 2005, 34-35). The "traces," in this case, are the statements made by individuals on the online discussion list and the archives of this list. Statements are a way to discover the connections that together make up the network. They perform the social in all practical ways and form the source of what it means to be in a society (Latour 2005, 232).

Barrett Watten (2006, 335-370) has been one of the many scholars to point out that the character of authorship is different in online communities. Authorship is distributed here, and the system itself may have agency. The computer and the discussion list, and the Internet on which it appears, are not neutral intermediaries, but *mediators* (Latour 2005, 39).

Collective ideals are no longer a condition for a virtual community, and there is no fixed communal identity. Instead, "the spirit of community" itself is crucial (Ward 1999, 98).

This community constructed not only itself but a new genre, too. DiMaggio (1987, 441) argued in his *Classification in Art* that new artistic genres are partly based on "social relations among producers." Genres, therefore, are socially constructed. "Creativity" was understood to work three ways here: both the outlines of a genre and specific works are created, as are the connections that establish the network itself. "Taste then, is a form of ritual identification and a means of constructing social relations" (DiMaggio 1987, 441). What is foregrounded is not only artistic production but sociability, itself, that has taken the place of family—and geographical social structures.

Community and networks of literary artists traditionally formed in specific ways. Centered around mostly institutional nodes (a salon, a journal, a university), authors have tried to establish common conceptions of literature (van Rees and Dorleijn 2001, 340). Common ground for author networks, centered around institutions, was found in rebellion against prevailing poetics and in the collective development of new poetic notions. Studies on authorship and group

constitution tend to focus on "strategic routes that serve to claim and legitimize a position in the literary (or in the scholarly) field" (Dorleijn et al 2010, ix). The question posed was whether the network of IF authors shows a similar shared interest in claiming a place for the new genre or in the professionalization of its authors. New "players" in the field tend to defend a new position for their work, starting at the periphery.

Firstly, in this digital community, the role of the *institutional or poetical* center seems to have made place for a *software and genre-based* center: discussion lists tend to be distinguished rather by questions of format than questions of aesthetics. In digital literature the writing technology is a crucial part of the strategy of signification: the ways in which a work can have meaning are determined by the choice of software and hardware. Poetics in digital media may be found in "its conceptualization and facilitation" (Memmott 2006, 300). A large part of the exchanges focused on technical issues. So, code libraries may perform as a vector of poetic effects. Different media formats (e.g. animation, hypertext, interactive fiction) seem to be decisive in electronic literature's crucial interventions into our globalizing communication networks.

Secondly, in online networks, the participants themselves "take the lead role in establishing the reality, status and principles of their group," and membership of the group is unconditional (Biggs and Travlou 2012). Next, a blending of roles in this network occurs as in most digital literature: practitioners, scholars, and consumers of digital literature tend to be the same persons performing different roles. The network of IF authors indeed seems to take over some of the institutional functions that were traditionally divided over different institutions. Works are written, read, and evaluated by the actors of the network. Prizes are awarded to the best work in different categories, 17 resulting in a "canon" of works of interactive fiction.

One of the traditional functions of subnetworks in the print literary field was exactly this: to find a way to a specific audience and even to *create* and educate such an audience. In print, this obviously implied creating a market for the work in question. This does not seem to be the primary function in e-literature communities, however; after Infocom, and apart from a single editor like Eastgate for hyperfiction, no attempts have been made at creating a market. Rettberg

^{17 &}lt; http://www.ifcomp.org/> and xyzzyawards.org.

(2009) compares the e-lit community to the subnetwork of print poetry since both are "an other-than-mass-market."

In terms of the cultural sociology of Bourdieu, this is the field in which producers produce for each other: the autonomous field. Since most actors in the IF network seem not very interested in "symbolic capital" (Bourdieu 1993, 47), we should draw another comparison: the networks of digital authors seem to share characteristics with nineteenth century literary and cultural societies as they thrived in Europe and in the United States. Unlike the eighteenth century "salons," these societies were not organized around a single person or a small group. They were larger, democratically structured, and more explicitly humanist in their goals. Emphasis was on rhetorical excellence as a means of civilization and education, and writing competitions were organized around a theme. Like in digital literature, there was no clear-cut division between amateur and professional authors—this came to an end when professionalization of literary authorship began around 1900. Many differences are to be found as well: the lack of face-to-face contact, the lack of humanist ideals, but, mostly, the fact that the new networks have to find a place for themselves within a literary world that is organized around the distinction between amateur and professional and between "popular" and "high art." The book publications on interactive fiction confirm this (van Dijk 2014, unpublished).

Thirdly, the explicit intention is thus to focus the creativity of the community on the formation and definition of a *genre*. This implies that discussions within the newsgroup have to be well-organized and limited to specific subjects, as the text of the FAQ shows. Newcomers to the list are assisted by this six-part reader but are simultaneously instructed as to the "rules" of the list itself, which are stricter than one would expect in the free zone of the Internet. Here, one learns what posts may be about (and whatnot). Apart from the basic rules of a civilized debate, there are rules that are specific to the condition for a network to come into existence: the obligation to communicate (van Dijk 2014, unpublished).

Fourth, contrary to what new media scholars tend to believe, the question of authorship seems to be not entirely unimportant in digital creativity. Generally, actors do not operate anonymously and act surprisingly similar as to how one would in "real" social situations. That is, questions are answered, identities are revealed, and rules of conduct respected. This confirms what *Collaborative*

Futures states on collaboration, that "rules for participation, established guidelines for attribution, organizational structure and leadership, and clear goals are necessary for participation" ("Field of Cultural Production" 2010, 4). The same goes for the newsgroup, which may be approached and described as a collaboration. Leadership, for example, is not organized explicitly, but a hierarchy seems to be based on the frequency of posts. Although authorship is not as "distributed" as one might expect in the new media age, there is generous exchange of free code on the list (although it is generally posted on the archive, not on the newsgroup).

The actors do not agree on their own cultural status as either "amateurs" or "professionals." This is the source of numerous discussion threads which deal with criticism, commerciality, and audience. This canonizing and historical force of the network is significant and surprising and seems to be modeled on literary history and art history. A term like "influence," for example, is borrowed from artistic discourse.

Although the network is not hierarchically organized, the system of evaluation and canonization is strong and well-established. This does not mean, however, that the roles of author and reader are distinct, and the actors in the community are well aware of their double role. Criteria for the evaluation and canonization of work are discussed explicitly: the actors in this network are authors, players, and critics of each other's work. These discussion strands point towards a high level of self-reflection and analysis of the community (aspects that in communities of "print-authors" we would see performed by critics, newspapers, and other institutions). The network of IF authors has a high state of self-sufficiency and self-reflexivity. The exchanges perform institutional functions: criticism, canonization, the writing of the "history" of the genre, and the influences it underwent, distribution, etc. This community in the periphery of professional authors is thus indeed built up like the nineteenth century societies of amateur writers or artists, which were their own institutions. As in those societies, emphasis is on craft and technique, and on production.

Meizoz (2010, 83) argued, however, that this emphasis is also a specific artistic pose since Rousseau's distinction between the "craftsman" and "man of letters." His "posture" has been copied by authors who want to express an "antiestablishment lifestyle": "the modest craftsman who was independent from the powerful." This may be an explanation for why the question of whether IF is literature (or art) does not attract much attention on the newsgroup. The rheto-

ric of the craftsman demands no obligation to break with the ancestors or with the established institutions. The literary compulsion to break with existing "established" poetics seems absent. Instead, communities center around previous, existing cultural genres like SF or detective stories. Rather than a poetics of the break, IF seems to be based on what we could call "a poetics of recycling." A possible explanation could be that the innovation of *medium* in digital work is so strong that the obligation to "make it new" is fulfilled on another level than on the level of ideas about form and function of literature. A second explanation might be that the authors do not consider themselves "artists" in the traditional sense, but craftsmen.

Finally, in many respects the creativity of the community of IF developers is to be found in the exchanges themselves, which have creative "agency" (Biggs 2010). Since the community (in the timeframe studied) had no other material or immaterial mode of existence other than the exchanges, they are of crucial importance. What is created is collective knowledge of and experience with IF that has been built up in the conversations. The well-archived exchanges function as a reservoir of critical, technical, and poetical theory. This implies a form of collaboration with a "product," which is however not to be measured in any pragmatic or economical sense of the word.

The individual members of the community of IF developers produce works of IF, which are—again—not to be measured in commercial or economic value but in pleasure and creativity on the part of the producer and the consumers.

If in digital communities, we see a return to face-to-face contact, then in the content of digital art, we witness a similar "affective turn."

POETICS: AFFECT AND EMBODIMENT IN DIGITAL LITERATURE

At the seminar on "Digital Poetics in the Present" (University of Amsterdam, December 2011), many scholars signaled a return to affect, embodiment, and materiality in digital literature. Rita Raley used the work of David Jhave Johnston to reflect on the "central themes and formal features of digital poetry as it evolved over the course of the last decade." In her keynote, "Living Letterforms': The Ecological Turn in Contemporary Digital Poetics," her contention was that in its "articulation of an ecological matrix of natural spaces and built environments and a diversity of life forms," Jhave's work is paradigmatic of work in the field of digital poetry after 2000, work that has "turned toward ecological matrices that are at once mediated

and lively" and to "an ecological system, an embedding of humans and computational media within a larger assemblage." Like Simanowski, Raley offered a turn to practices like "close reading and interpretation," suggesting that "the range of expression in digital poetics warrants the critical attention to linguistic form and aesthetic practice that has historically been given to print genres." She discussed the difficulty of extracting meaning from a text like Jhave's *Sooth* in which the relations among "text, video, and audio" are so complex. Embracing the techniques of deformative criticism articulated by Jerome McGann and Lisa Samuels (1999), Professor Raley nonetheless offered detailed readings of Jhave in an attempt to get at what is at stake in the shifts she finds in digital poetics of the last ten years. For Raley, Jhave's work "expresses a distinctive ecological sensibility, one that embraces relationality and animism, or the vitality of nonhuman beings, including textual forms."

Eric Dean Rasmussen pursued a comparable line of argument, claiming that much recent work in contemporary literature, especially within the subfield that studies "experimental" or "innovative" "technotexts," assumes that the humanities have neglected the lived human body. Literary critics should overhaul outdated hermeneutic approaches that tend to overlook bodily sensations (with the emphasis on ocular tropes that privilege looking as providing the means of understanding) and that tend to disregard the integral role of sensory experience in any sense-making process, including reading. From the perspective of various new materialisms, which emphasize the ubiquity of data to be extracted from dynamic objects that are constantly in formation, the age of information multiplicity demands an expanded sense of reading, one that posits reading as a fully embodied activity, an affective encounter with potentially transformative materials. Rasmussen emphasized that these materials include literary artifacts and insisted on the instability of textual systems and how texts interact with and mutually affect other objects, both human and nonhuman, in their material environments. By taking such an approach, he contended, literary studies would participate in a larger "affective turn" that's been taking place across the social sciences and humanities.

Next, Rasmussen sketched what a turn to affect might entail for literary studies: a greater receptivity to literature's affective dimension, to the ways writing can move readers—to tears, to laughter, etc.—and impact their bodies, viscerally, making their heads spin and stomachs knot. But engaging with affect is a challenging project. How can literary critics coherently convey their visceral read-

ing responses and provide intelligent analyses of aesthetically induced affective states? Engaging the materiality of language is where things get challenging, even risky, for those committed to literary interpretation. It's along this line of inquiry that some recent technotexts (Marc McGurl, N. Katherine Hayles) appear well-positioned to make significant interventions in debates concerning the potential gains and losses of embracing a materialist aesthetic.

Rasmussen claimed that this aesthetic works by transforming linguistic signs into raw marks, texts into physical objects, and intentional communications into affective transmissions. And such a transformation, recent technotexts demonstrate, is but one of the many affordances provided by word-processing and computational technologies. Taken to its limit, however, this transformation can lead to the idea of the text's meaning, and the hermeneutic project of interpreting that meaning, being replaced by physiological accounts of readers' affective experiences. At a moment when interpretive skills are alleged to be eroding, this presents something of a worst-case scenario for literary studies. Rasmussen suggested that a focus on the replacement of hermeneutic reading by affective communications as a literary theme suggests that contemporary writers of technotexts are sensitive to changing notions of literacy wrought by new technologies, and, on the other hand, that an analysis of non-linguistic modalities in print and digital technotexts encourage the development of affective hermeneutics for literary studies. Ultimately, this focus is designed to contribute to a larger argument on behalf of affective or erotic (Roberto Simanowski, Susan Sontag) hermeneutics.

A possible example of a reading that is at once hermeneutic and attentive to affect and a "materialist aesthetic" was the contribution to the Amsterdam seminar by Yra van Dijk (2011, later published in the *Journal of Dutch Literature*). She analyzed an instance of remediated handwriting in digital literature ("Unrest," a poem by Tonnus Oosterhoff, translated for the occasion). She concluded that the remediation of handwriting shows that digital poetry brings ethical and aesthetical issues to the fore that are at stake in contemporary literature. It is first of all an affective and bodily engagement that the material presence of the text seems to provoke, while simultaneously being ironic and postmodern. The distance that separates us from the world is expressed by means of the mediatized and digitized environment in which the work is performed. Whilst pointing to our technological condition, the works try to go beyond it in a new materiality that is enacted between, on the one hand, the presence and

the body of the author and her/his writing hand and, on the other, the machine that remediates that presence. Although suggesting proximity to the original, material moment of writing and to the author's bodily presence, these works prove such an original moment and original body to be nonexistent. Every act of language is revealed as an iteration and the authentic body to be a performance itself. Van Dijk thus problematized the possibility, discussed by Raley and Rasmussen, of animism and affect in the digital. She claimed that only a *performance* of the material and original presence of the artwork is possible: a performance of the real. This critical stance was heard in more contributions to the Amsterdam Seminar, which may be said to have demonstrated a "critical turn," too.

RESISTANCE AND CRITICAL ENGAGEMENT

Professor Roberto Simanowski opened the Amsterdam seminar with the lecture "Warfare and Conventionality: How Avant-garde Computer Generated Text Can Be." Firstly, he pointed out that computer generated text has been considered warfare carried out against conventionality and was accordingly tagged "cybernetic Dadaism," which seems to be obvious given that most computer generated text is nonsensical. Simanowski contended, however, that there are attempts to have the machine generate meaningful text ideally indistinguishable from text by a human (for example, Michael Mateas' and Andrew Stern's interactive drama *Façade*).

The question that Simanowski posed is the following: "if a machine aims to be as good as a human writer, can it still afford to do what a human writer may aim at: writing like a machine?" Wouldn't any idiosyncratic style—which might in conventionally generated literature be understood as avant-garde—be perceived as a failure of the program? Simanowski concluded that literature cannot be avant-garde in both its way of meaning and in its style.

A similarly critical note was heard in the third keynote, by the Belgian professor Jan Baetens. He re-evaluated the claim to originality that is often made for digital literature, comparing it to earlier installment literature and criticizing the teleological stance that is taken with respect to the digital.

Baetens stated that in the debates on digital culture, medium-specificity is not currently a priority. For many critics and artists, it is no longer even relevant. This rejection of medium-specificity occurs both at the level of the object (today, the digital work is considered "essentially" hybrid and intermedial, and it is situ-

ated in an expanded cultural field whose main feature is that of cross-medial convergence) and at the level of the disciplinary approach (which has now become, by definition, interdisciplinary). Baetens argued, however, that even in the age of interdisciplinary readings of cross-medial hybrid objects, medium-specificity is far from dead. Authors such as N. Katherine Hayles or Lev Manovich continue to make a strong plea for a focus on specificity at the object level. And the renewed interest in "transdisciplinarity" (see the Plymouth group) also makes room for specificity at the methodological level.

The case that Baetens analyzed was a dialogue between print culture and digital culture in which medium-specificity was also far from absent. If digital culture is seen as a remediation of print culture, print culture's reaction to digital culture obeys not only the rule of repurposing (which is a kind of inverse remediation) but also that of medium-specificity: books and print are becoming "more" books and print than before.

Baetens' example of the complex dialogue between print and digital culture was the notion of hypertext. Although hypertext is often presented as "print + something," i.e. as something that print cannot achieve by itself, this interpretive scheme is techno-determinist and teleological, according to Baetens:

The renewed, more self-reflexive approach of print culture makes clear that the association of print culture and sequentiality does ignore the history and cultural multilayered-ness of print, which has always been open to many forms of non-sequentiality.

He addressed the inscription of serialized texts in a precise historical context and a social context (e.g. the links of serialized literature with popular culture and informal ways of culture industries). Baetens focused on some new aspects of "periodization/serialization" in print culture, which he claimed are being prompted by contemporary digital culture and which in turn might be a source of inspiration for electronic writing. Thus, he concluded on a mix of continuity and discontinuity, and he signaled new forms of fragmentation and of multiple publication formats in analogue literature.

Kiene Brillenburg-Wurth's contribution to the seminar took a similar starting point. She contended that although one sees much influence of paper culture on print, the reverse is true as well. After analyzing two examples of such influences, she concluded that print literature is being radically altered by the digital surroundings in which it is produced and read. Digital "methods" like hyper-

textual structures are to be found in analogue literature, too, where they function as self-reflexive moments. The materiality of texts is foregrounded: "Because the recurrence of signifiers in different contexts and positions is made visible through a constantly changing graphic materiality (font, style, size, etc.), we now see what we normally pass over." In the cut-and-paste texts that she discussed, authorship is questioned, too: "they point to a felt loss of authorial intention, the inevitable gap between sender and message, message and reader, sender and reader."

The reflexivity of electronic literature was also the subject of a fourth lecture, by Scott Rettberg. Starting, like Brillenburg-Wurth, Baetens, and van Dijk, from the question of the affiliations between the old media and the new, between print literature poetics and electronic literature poetics, he explored mutual influences between print and digital. After addressing the issue of authorship in an exploration of the meaning of the speaking "I," the "narrator," and the "author," Rettberg presented a talk that was a deconstruction of the limits between personal, artistic, and scholarly work. One of the conclusions we may draw is that creativity may just as well be found in a scholarly community as in a conference.

Searching for thematic concerns and formal characteristics that informed the practice of hypertext, Rettberg stated that electronic literature is moving away from fiction in the last decade and posed the main question: "What forms do the connections take between the work of the American metafictionists in the 70s and the work of the electronic literature authors from the 90s onward?" The speaker assumed that "the more interesting aspects of literary postmodernism [...] could more deeply and productively be explored by e-lit authors, particularly those working in narrative forms."

The comparison between literary postmodernism and electronic literature is found in an impulse towards reflexivity, Rettberg argued. Four types of reflexivity were discussed: the reflexivity of the real or postulated author, intertextual reflexivity, formal or generic reflexivity, and medial reflexivity (testing the boundaries of media specificity). For all of these forms, Rettberg gave examples from both print literature and from electronic literature by Shelley Jackson.

CONCLUSIONS

Conclusions may be drawn on all three levels on which poetics of digital literature were explored. Institutionally, the analysis of paratexts of digital literature has demonstrated a strong focus on appropriation of the work by author(s). The authors' influence on paratexts has grown considerably as compared to print literature (van Dijk 2014, unpublished). Digitally, these paratexts are only a few mouse clicks away—like the source code, which gives information on authorial intention and that we may incorporate into the category of "paratexts." Another new paratext is the World Wide Web itself, which has partly taken over the role that social spaces and institutions play in the field of print literature.

Similarly, institutional collaborative authorship, which is part of the creative process, ends up becoming an important part of the work. The goals and the creative energies of a collaborative community are to an important extent concerned with the description, the establishment, and the rules of the community itself. The function of digital collaboration therefore resembles what Jakobson in his communication theory called the "phatic" function—which performs primarily a social task: the confirmation that communication is in progress. I would propose to create an analogous category for this self-reflexive collaboration: phatic collaboration. "Phatic" is Greek for "spoken" or "I speak," so "phatic collaboration" would mean collaboration that we talk about.

This implies that the text is its own paratext—it describes what it is and in which tradition of digital and non-digital cooperation it operates. It is extremely self-reflexive, and the authors are aware of it.

Not all collaborative works are phatic, obviously. What we did see, however, is that the content of many collaborative works is often indirectly concerned with polyphony, interdiscursivity, or interculturality. And, contrary to some of the earlier experiments in the 1960s and 70s with collaboration in visual art, emphasis often was on the material result of the collaboration, rather than on the process alone. Another conclusion is that contemporary collaboration is not always a political or poetical choice: the necessity to cooperate may be a consequence of the software used, which demands a technological knowhow in addition to literary knowhow: often authors and new media artists/engineers need to join forces to make a work. In that respect, contemporary online literary collaboration resembles medieval collaboration in book making. This technically "forced" collaboration has always been present in visual arts, where artists collaborate with

craftsmen. From this follows the fact that collaboration in digital literature generally implies interdisciplinarity.

The last and most important inference is that, contrary to modernist art and literature, in digital literature, collaboration is not necessarily marginal. It is rather institutional and canonical even at the moment of conception. Indirectly, all the cases that were researched were made possible by government or academic funding. Parallel to the absence of anarchy, we do not see an explicit desire to shed the artist as a central figure. Generally, the avant-garde framework that is used to analyze collaboration in visual arts in the twentieth century does not seem to apply.

In addition to these top-down collaborations, we focused on bottom-up collaboration: an international online community of authors of interactive fiction. Firstly, in this digital community, the role of the *institutional or poetical* center seems to have made place for a *software and genre-based* center: discussion lists tend to be distinguished rather by questions of format than questions of aesthetics.

Secondly, in online networks, the participants themselves take the lead role in creating and structuring the group, which is characterized by a blending of roles: practitioners, scholars, and consumers of digital literature tend to be the same persons performing different functions. The network of IF authors indeed seems to take over some of the institutional functions that were traditionally divided over different institutions.

The explicit intention is to focus the creativity of the community on the formation and definition of a *genre*. Contrary to what new media scholars tend to believe, the question of authorship is not entirely unimportant in digital creativity. Generally, actors do not operate anonymously, and they act surprisingly similar as to how one would in "real" social situations.

The symbolic value of the genre is negotiated constantly in the community: the actors do not agree on their own cultural status as either "amateurs" or "professionals." This is the source of numerous discussion threads which deal with criticism, commerciality, and audience. This canonizing and historical force of the network is significant and surprising and seems to be modeled on literary history and art history. A term like "influence," for example, is borrowed from artistic discourse. The exchanges perform institutional functions: criticism, canonization, the writing of the "history" of the genre and the influences it underwent, distribution, etc. This community in the periphery of professional authors is built up like the nineteenth century societies of amateur writers or artists, which were

their own institutions. As in those societies, emphasis is on craft and technique but also on the community itself. The creativity of the community of IF developers is to be found in the exchanges themselves, which have themselves creative "agency" (Biggs 2010). Since the community (in the timeframe studied) had no other material or immaterial mode of existence other than the exchanges, they are of crucial importance.

Finally, on the textual level, several conclusions may be drawn about digital poetics. Important trends in recent digital literature are the turn towards the ecological: "an embedding of humans and computational media within a larger assemblage" (Raley 2011). A new emphasis is found, in theory and practice of electronic literature, on *affect*: a sense of reading that posits reading as a fully embodied activity, creating a crucial role for materiality of old and new media and of the ways in which these are combined. Reflexivity of this materiality and of the medium (Rettberg 2009) is a recurring characteristic, which leads to an exploration of issues of authorship, presence, and embodiment (van Dijk 2012a). The media-awareness of the digital genres has led to a renewed interest in the medium-specificity and the history of the materiality of print literature, too.

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CREATIVITY AND INNOVATION IN PRACTICE

ELECTRONIC LITERATURE IN/WITH PERFORMANCE

JEROME FLETCHER

INTRODUCTORY REMARKS

The Context of the Research and the Seminar at Arnolfini Bristol hosted by Falmouth University within the ELMCIP research project, May 3rd/4th 2012

significant element of electronic literature as a field of practice and inquiry has been its relationship to liveness and the body. This has taken a number of forms, ranging from embodied gestures required to access a digital text; to public readings of digital text from the interface or projected into a specific space; to live performances involving one or many performers in concert with, or in response to, a computer-generated text. Some of these performance modes have links to recognizable practices such as theater or, within the literary world, the live reading. Others are more specific to e-literature such as the mouse gesture, the haptic gesture of the touch screen, the embodied interaction with motion capture, etc. Initially, this delimited the area of digital text practice interrogated by the Falmouth University (UCF) project. However, the course of the project broadened the area of interrogation to open up new questions about the relationship between performance and electronic literature.

While retaining the focus on the embodied, live performance, a wider conception of the notion of performativity was developed during the course of the research and applied to works of e-literature. This wider concept sought to give an account of performativity across the whole range of the digital device. Another way of looking at this is that the word "performance" can be applied to the hardware (the computer as machine), the software (the operating system, the programmable codes), as well as direct human interaction at the interface and beyond. For this reason the Falmouth seminar sought to attract not just academics but engineers, coders, and programmers as well.

PRACTICE-AS-RESEARCH AS A METHODOLOGY

In addition to an extended notion of performativity, the Falmouth research was interested in examining the extent to which practice-as-research can usefully play an explanatory role in the emerging field of e-literature. E-literature is by its very nature interdisciplinary, and it is often the case that academic researchers of digital texts are not only practitioners but also technicians in that they are closely involved in the practical development, programming, and application of digital text works. Needless to say, the notion of practice-as-research is a contentious and ill-defined issue in the humanities and requires a certain amount of framing.

Electronic literature is a complex process. Language is embedded in a "noisy" environment of hardware, software, sound, image, video, interface, etc. In order to be realized, e-literature needs to mobilize at a minimum the forces of computing, writing, performance, visual art, and design. Because of this mix of discourses and practices, much of the knowledge that emerges from e-literature is an embodied knowledge and a knowledge that crosses back and forth between theory and practice. In other words, it is a *praxis*. Much of e-literature is also processual. In order to give a full account of a piece of digital text, researchers have to be aware of the processes by which the work was created. Because of all this, it was important to make the Bristol seminar, above all, a dialogue not between thinkers and doers (in e-lit, as stated above, these are often one and the same person) but between thinking and doing. A further aspect of this dialogue is an attempt to break down the distinction between these two modes such that thinking becomes a form of doing and vice versa. This approach is well summarized by Barbara Bolt in the following passage:

Praxical knowledge takes a number of forms and it is this multiplicity that provides creative arts research with its distinctive character. Whilst the artwork is imminently articulate and eloquent in its own right, tacit knowing and the generative potential of process have the potential to reveal new insights; both those insights that inform and find a form in artworks and those that can be articulated in words. It is here that the exegesis offers a critical role. Rather than just operating as an explanation or contextualisation of the practice, the exegesis plays a critical and complementary role in revealing the work of art. (Bolt 2005, 7-8)

One final comment as a pretext to an account of the seminar: the event itself was located at Arnolfini Bristol. This is an internationally recognized art and performance venue with strong links to digital media work. Given the interdisciplin-

ary nature of e-literature and its practitioners, and, mindful of the importance of impact and outreach, it was decided to locate the Falmouth seminar off-campus in order to attract a larger and more diverse public, especially to the performance events held in the evenings of the seminar.

DAY ONE: RECOGNIZABLY THEORETICAL PAPERS

Jerome Fletcher (Associate Professor of Performance Writing, University of Falmouth) gave an introductory paper that framed or contextualized many of the points made above. The paper began from the observation that "performance" was a word that permeated the discourse surrounding e-literature but was nowhere properly theorized. Building on N. Katherine Hayles' distinction between the "event" of digital text as opposed to the "object" of the literary text, the paper sketched out what e-literature inflected by performance theory might look like. It would comprise a series of integrated multimodal writing practices set within a field which would provide a context for understanding performance in relation to:

- language (speech act theory, ordinary language philosophy, integrational linguistics);
- writing and embodied performance (theater studies and performance art theory);
- programming (software studies) social and ritual interaction (Erving Goffman, Victor Turner, Judith Butler et al.);
- philosophy (contextualism, A.N. Whitehead, Badiou and Deleuze on the event); and
- interactivity (games theory).

This was presented as a cartographic exercise rather than a fully worked-out program. It sought to provide an extensive but delimited framework for investigating how e-literature might be configured with the theory and practice (praxis) of performance.

As a computer engineer and former member of Hewlett-Packard Research Labs in Bristol, John Lumley (University of Nottingham) was interested in what the computer scientist understands by the word "performance" with reference to the machine. His paper looked at the history of computing and in particular the exponential growth in demand for improved performance. The focus of his presentation was the notion of speed and time, the subtitle being "Why Things Take

Time and How We Make Them Faster." At the same time, he touched on the question of size. As the demands for still and moving graphics and sound grow, data gets bigger and bigger, requiring increased performance from the machine. There are limits, however, on both the amount of data that can be processed and the speed at which it can be processed, due to the sequentiality of tasks and the fact that each one takes time. This led to two questions: if we can't do X, Y, and Z faster, can we do them simultaneously? And if we can't do X faster, can we do many X at once? These questions introduce the notion of parallel processing and from there forward to the possibility of quantum computing. These issues of computer performance feed directly into e-literature discussions about the way in which changes in technology affect changes in the way digital text works are displayed. Thus, work that was made for a particular device some time ago will run faster on modern machines, and, if pace and rhythm are important aspects of the performativity of digital text, then this can have an adverse effect on the work.

Clive Fencott (writer and computer scientist) gave a paper entitled "Performance as a Categoriser." This was inflected by games theory and at the same time examined the overlap between experimental page-based literature and eliterature. Here, he was looking at the "SPaRring (Scripton Presentation and Removal) process" which is enacted between the sparring partners "playereader" (the reader who is willing to play) and text. He argued that the multiple acts of bringing-into-being produce the phenomenal from the literal. The many forms that technology can enable, from the pBook (paper book) to the potentially unlimited forms of the e-book of e-literature, now constitutes an open field.

The Inside-Out Code—a once taken-for-granted instance of the Hermeneutic Code, the enigma of the text machine—becomes an equally playful aspect of SPaRring. The playereader becomes aware of the signifying potential of interactive forms.

Alternative SPaRring forms are often more unsettling in pBooks where the rigid alignment of ascending page numbers and narrative potential has often seemed to characterize all that a book could be. But alongside digital texts, many pBook authors such as Mark Z. Danielewski, Kim Newman, and Milorad Pavić have offered similar disturbances to the playereader.

Offering up some alternative terms, Fencott argued that the category that transcends the print-digital divide might be referred to as the "interactive" and

maybe the electronic book as the "ie-book," in other words. And the variable that characterizes this category is performance.

For Fencott, this raises a number of questions around performativity and the text. If the playereader's performance with the text is no longer a given but a conscious act of discovery, then what are we enacting? Are we different SPaRring with these novel forms? Are we less the consumer, more the explorer, playereading more into our selves? And what happens when SPaRring is brought into public performance?

Alexandra Saemmer's (Associate Professor for Information and Communication Sciences at University Paris 8 and vice-director of Labex H2H Laboratory) paper, "Hypertext Reading: A Retro-Projective Performance," was the first attempt of the seminar to engage with a performative/theoretical hybrid. According to Saemmer, "a tissue of potentialities surrounds any real-life situation. Before it is activated, any hypertext has us dream about this tissue." Surveying hypertext from its earliest history, Saemmer argued:

Hypertext is a powerful generator of imaginary worlds because it holds out on the reader: before it is activated, the reader often has no concrete idea what will happen. After it is activated, the reader certainly notices that most hypertexts invariably link a text to another text. The original text that I propose to call "parent text" has, however, at least temporarily disappeared from the screen. That is how hypertext plays with our expectations, before and after its activation.

Saemmer further described hypertext through the image of "a projection room where parent texts and related texts succeed and overlap each other, where more or less blurred memory traces 'silt-up,' meet or deceive our 'horizon of expectations." Saemmer also argued that hypertext could be seen as a risky "toy":

In its extreme stage, hypertextual reading becomes the symbol of a society characterized by its fleeting attention, a society lacking concentration. It illustrates in a powerful, literally "palpable" way the extent to which the obsession with "frenetic clicking" is grounded on a failure to remember: a failure exploited by a "compulsive capitalism" that has invaded the digital networks.

In these circumstances, Saemmer called for "[a] new culture of interpretative reading" but expressed concern as to whether readers are ready to engage with anything more complex than the notion of hypertextuality as the "confirmation of information."

Saemmer turned to some key concepts from the "reader-response" theory in Anglophone research to engage this question, largely derived from Wolfgang Iser and Hans Jauss. For Saemmer, "Hypertext not only establishes a relation between a parent and a related text, it is also an interactive, 'manipulable' element that combines at least two different semiotic systems through the same active support: a text and a 'manipulation gesture." This latter has been widely ignored.

Certain reading practices emerged from her analysis, such as "pro-stimulative' reading, which may ideally stimulate the most prolific, alert, hyper-attentive minds, driven by an unquenchable curiosity." She also referred to a "retro-projective" reading, which is interpretive and performative. This is a reading which requires time. By taking the time to examine the relationship between parent and related text in order to better understand that relationship, the retro-projective reading flies in the face of one of the fundamental tenets of the information society, which is the constant accrual of new data in an onward rush. According to Saemmer, "[i]n a society of impatience, the methodical retro-projective, interpretative reading therefore becomes a militant act."

Aiming to reverse claims for the "death" of the hypertext, Saemmer's amalgam of semiotics and pragmatics seeks to show to what extent hypertext is still "alive," and worth the time we invest in exploring it.

In conversation with J. R. Carpenter, Jörg Piringer (programmer, sound poet, live performer, and teacher at the University of the Arts, Vienna) explored the notion of the performativity of code. Carpenter herself, although not trained as a programmer, creates her own code through adapting that of others or working with programmers. The central question they discussed is the extent to which code can be thought of as performative in the same way that aspects of natural language can be thought of as performative according to J. L. Austin's formulation. The conversation hinged on questions of social context. Does code (which is certainly performative in that it is executable, i.e. it brings about certain actions) have a sufficiently developed social context to count as performative in the same way as natural language? The performative might then provide a context for talking about writing at the level of code and at the level of the interface within the same mode of analysis.

Maria Engberg's (Assistant Professor at Blekinge Institute of Technology, Karlskrona, Sweden) paper was in some senses a companion piece to Saemmer's as it was concerned with the aesthetic explorations of tactility and sensuality that

contemporary multi-touch gesture technologies offer. She explored the provocative performative space that is created in the feedback loop of the (popular) modernist interface design and engineering of Apple's various iPhones and iPads and the multifarious aesthetic, musical, graphical, and textual interfaces of applications created by musicians, artists, and writers. Her paper focused on a comparative analysis of interfaces, specifically the "dance of gestures" and its tight link to representation via digital touch, the movement of the device, and the interfacial aesthetic elements of sound, image, and text. Engberg presented three interfaces/experiences: Jörg Piringer's abcdefghijklmnopqrstuvwxyz, Björk's Biophilia, and Eric Loyer's Strange Rain.

The paper explored what an aesthetics of gesture and touch might be, realigning the rhetoric to address the applications as sensory, intellectual, and aesthetic experiences rather than "interactive" or as game/play. She analyzed the interfaces and the experiences they shape through their "complex surfaces" (a phrase coined by poet and theorist John Cayley) and through their "pliable" and "rhythmic" qualities of aesthetic interaction (using terms from interaction designer Jonas Löwgren). The dialogue between interface design and engineered interaction of the iPad's LCD touchscreen extends to the user, who through sensory engagement participates in the aesthetic event. The works that the paper focused on were not exclusively centered on writing; rather, they foregrounded the contemporary penchant for multimodality and, by extension, polyaesthetic creation and reception.

The title of David Prater's (postdoctoral researcher in electronic literature and pedagogy at Blekinge Institute of Technology, Karlskrona, Sweden) paper was "Davey Dreamnation and the Performance of Self." He set out to explore questions of personal identity and performativity in the digital context. This was done through an account of a series of personal websites featuring a fictional character, Davey Dreamnation, a failed rockstar and comic alter ego. The performance of this character (a form of avatarism) brings with it various notions of play, irony, and humor. The presentation sought to engage with performance of the self with reference to (and critical appraisal of) theoretical ideas of performance as expounded by Judith Butler et al. The performance of character in a heavily mediated online space raises questions about human interaction with personal websites, which "perform" as actors in their own right—that is, as cocreators. This performance influences other users' readings of character and iden-

tity. The presentation took on some of the issues raised in the call for papers, specifically the usefulness of performance studies in blog environments.

Under the title "Jesurun's Digitalist *Firefall*: Staging the Analogical Relation as Cognitive Performance," Christophe Collard (Lecturer in performing arts and a postdoctoral research fellow at the Vrije Universiteit, Brussels) looked at the work of American filmmaker-turned-theater-practitioner, John Jesurun. He argued the following:

Recent technological developments have led to what Jesurun once called a "troubled tension" between an overall sense of greater efficiency and the confusion caused by their sophistication. Accordingly, the cultural contribution of digital media to contemporary theater productions precisely resides in the explicit *staging* of the mediation itself. In more concrete terms, it implies that even if the coming of digital coding virtually imploded the material basis of cultural conventions, it would still prove scientifically relevant to develop a critical perspective capable of what performance theorist Gabriella Giannachi called "the 'happening' of the interface" (Giannachi 2004)—in this case: the *dramatization* of the theater's "hypermedial" capacity to incorporate an unlimited number of signifying systems in digitalist productions.

In John Jesurun's recent work *Firefall* (Phase 1 2006; Phase 2 2009), he performs the hypertextual interaction between the reader and the writer of a digital text within an artistically conceived framework. In this production, the performers are continuously seen reciting from memory while surfing the web and conversing in virtual chat rooms displayed on various screens, thereby *operationalizing* the notion of digital (inter)activity as cognitive performance.

Unfortunately, Cristophe Collard was not able to make it to the seminar at the last minute. His paper was read, but no opportunity afforded to interrogate it.

DAY TWO: PRACTICE-BASED PRESENTATIONS AND PERFORMANCES

Christine Wilks (digital artist/writer) presented "Out of Touch," a digital text performance. "Out of Touch" is a series of musings on the paradoxical and often poignant nature of human relationships in the midst of networked life. It forms an ongoing project of playable and performable media. Both the online project and its live presentation are an exploration of the performance of touch in remote

¹⁸ Archived at < http://crissxross.net/oot/indexoot.html>.

communication—the hand touching keyboard, touching screen, touching pen and paper, and touching to explore and to feel remotely. It also entails a performance of an absence of the hand, an absence of touch.

Wilks explains the following:

In our world of perpetual connectivity, touching interfaces that keep us out of reach, we form attachments whilst remaining detached, by turns kindling and dampening emotions. [...] Our words perform in our absence and others' words touch us in theirs. But we risk being typecast by the insidious pressure of social networking and its insistence on the perpetual typing and tapping out of our everyday experiences and emotions into the networked social arena. Individual episodes of "Out of Touch" express via playable procedures and games the tension between "the public performance of social texts and the off-screen story of private rehearsal, unspoken words, hidden feelings and innermost thoughts."

Martin Rieser (Professor of Digital Creativity in the Institute of Creative Technologies at De Montfort University) gave a short presentation on some of his projects from *Labyrinth*, a work that comprises drama, digital image, virtual environments, and interactive video. Also included were the interactive video dramas *Understanding Echo* and *Triple Echo*. Other works presented by Rieser included *Hosts*, which uses mobile and positional technologies combined with interactive sound and video, and an authored book on locative technology called *The Mobile Audience*. His most recent piece, *Secret Garden*, is a virtual reality opera/ballet. Rieser also looked more specifically at two concepts: sticky video and sticky sound, where audience movement drives the nuances of narrative via the spatialization of story. He also discussed the constructivist approach to narrative forced on the audience by nonlinearity, which grows the poetic story world by multiple trajectories through the material.

Paula Crutchlow (digital artist/performer/writer) presented her ongoing, multi-authored project, *make-shift*, which was developed with Helen Varley Jamieson and Furtherfield, a digital community located in London and run by Ruth Catlow and Marc Garrett.¹⁹

The *make-shift* project is an intimate networked performance and discussion event that reimagines the private actions of domestic lives as multiple, interconnected, and with global consequences. Each event takes place simulta-

¹⁹ Furtherfield was the subject of an ethnographic study carried out by Dr. Penny Travlou of Edinburgh University as part of the ELMCIP project.

neously in two ordinary houses connected through an online interface, accessible through the live stage link on the website to anyone around the world with Internet access. Not just telematically connecting artists in two different spaces, nor working in a purely online chat/graphic format, *make-shift* combines these, creating real-time dialogue between houses and people across the globe. Everything that happens in the houses is streamed to online audiences who can also join in the activities and contribute text chat visible on the interface to everyone participating. The event ends with a sharing of food in the houses and a discussion around the consequences of global connectivity and consumption. In that sense, *make-shift* is a pretext for digitally-engaged social debate and action, linking the local with the global.

WORKS-IN-PROGRESS

In addition to the three artist's presentations, there were five work-in-progress showings. The original proposal for the Falmouth research project within ELMCIP was to use the Falmouth seminar to provide a work-in-progress moment for some of the performers who would be making work for *Remediating the Social*, which was the final conference and gallery/performance event in Edinburgh.²⁰ In this way, the writers/performers/artists would be given the opportunity to present their creative thinking about their work, and the delegates to the seminar would be allowed to interrogate them from a more theoretical perspective. Significantly, the performers are also academics/teachers in their own right, used to articulating their creative processes and therefore very capable of bridging the theory/ practice divide. The Bristol seminar allowed them to gauge responses to the piece and to take on board feedback for the participants.

Annie Abrahams (a France-based Dutch artist who has been working in the digital environment for a number of years) collaborates with dispersed performers across a networked system, each in a different country but linked by the Internet. The piece that she was developing in Bristol was based on the fragility of the networked system. In many ways, she was testing the robustness of the system both technically and communicatively. Each iteration of the performance was posited on the technology working properly but, over and above that,

²⁰ For a fuller account of the performance event there, read Simon Biggs' report included in this volume.

on how the performers who participate communicate with each other. Each was only allowed to talk in one language, which was often incomprehensible to the other performers. The goal of the research was to find ways in which they could communicate successfully with each other in such a way that they began to perform as an ensemble. The work she presented at *Remediating the Social* was entitled *Huis Clos/No Exit*.

J.R. Carpenter (writer for networked programmable media; research student at Falmouth University in a practice-led PhD articulated around performance writing and digital textuality) has been working on the web since the mid-90s and is hugely experienced in this area. The project she was developing for Edinburgh, *The Broadside of a Yarn*, involved embedding digital text performatively in locative media, maps, and visual displays. This project drew upon a number of nineteenth century literary sources and sought to open up a debate on the use of found and digitally generated text. The work was also remediated as a polyvocal performance piece. An area of particular interest to Carpenter is the relationship between digital textuality and dramaturgy.

Dr. cris cheek (Associate Professor at the University of Miami at Oxford, Ohio) is an interdisciplinary artist, writer, and performance poet; his work spans a variety of performance modes. The work he presented at Bristol was designed to raise the question of the location and position of the body in relation to eliterature. In this instance, he worked very specifically with digital text projected onto the performing body and with how a spoken text might emerge from the interaction between the two. He also interrogated the boundary between digital text and image. At what point does an image become a text and thus susceptible to a reading? This is an important area for e-literature and deals with a greatly extended notion of what constitutes a digital text. The work he presented finally in Edinburgh was entitled *B A C K L I T*.

Much of Dr. Donna Leishman's (academic and web artist/writer; course leader for the BA in Illustration at Duncan of Jordanstone College of Art, University of Dundee; supervisor of PhD and masters students) practice-led work combines critical writing and research into digital text. Her particular area of interest is interactivity and its relationship to the performance of narrative. This includes an investigation of what stories are being told on the network and what digital literature potentially offers. In collaboration with Steve Gibson she devel-

oped *Borderline*, a performative piece for two-handed digital interface, described here in her own words:

[It] adds to current debates on immersion and interaction within Electronic Literature—it challenges the solo reader and the gaming win/ lose paradigm by designing a new dual interaction system where two users via improvisational action interact together within an audio-visual environment. The narrative is based on borderline personality disorder (visualizing the problems of disassociation and hysteria through image, movement and narrative structure).

Although not part of the final performance program at *Remediating the Social*, Jörg Piringer's presence at Bristol was significant. Much of the work he showed centered on the remixing of language at the atomic level of single sounds or phonemes. This combined projected visual text with mediated and digitized voice. In addition, Piringer presented some of the apps that he developed which mix the visual and the verbal. A central concern of his work is to examine the materiality of digital text not only as written language but also as sound. In addition to the live performance and the animated textual performance at the level of the interface, Piringer's work engages with source code as a location for performative poetry, thus blurring the lines between the poet and the technician. For e-literature, insisting on this distinction makes little sense.

PUBLICATION

The initial intention was not only to upload the content of the seminar to the ELMCIP Knowledge Base but also to publish the papers of the seminar in a dedicated issue of *Performance Research Journal*. Alongside the publishing of the proceedings, the intention was to include some artists' pages drawn from the workshop/presentations given by practitioners on the second day of the seminar. In the event, it was decided to widen the call for papers so that a broader range of theorists could be drawn upon. Of the final twenty-two papers accepted for the *Performance Research Journal* issue, four were papers that were delivered at the ELMCIP Bristol event. This will have the effect of widening the inclusions within the ELMCIP Knowledge Base. At the time of writing, the following papers were in preparation:

LIST OF PUBLICATIONS FOR PERFORMANCE RESEARCH JOURNAL 18.5: WRITING AND DIGITAL MEDIA

- "Towards a Poor (Techno)Theatre / Escritura Acto" by Aravind Enrique Adyanthaya
- "R/W/E or CHMOD -777" by Sandy Baldwin (West Virginia University)
- "Transcript of the Twitter Performance 'Dawn Chorus,' October 2011" (artists' pages) by Joanna Brown, Natasha Vicars, Mary Paterson, Tiffany Charrington, Eddy Dreadnought, Sally Labern, and Tamarin Norwood
- 4. "Extending the Platform: Digital Pragmatism and Hatch Nottingham" by Wayne Burrows, Michael Pinchbeck, Nathaniel J. Miller
- 5. "Signature of Digital Subversion: Joseph DeLappe's Online-Writing Performances" by Dr. Gabriella Calchi-Novati (Trinity College Dublin)
- 6. "The Broadside of a Yarn: A Situationist Strategy for Spinning Sea Stories Ashore" by J. R. Carpenter (Falmouth University)
- 7. "Reading and Giving—Voice and Language" by John Cayley (Brown University)
- "Live Code: Notations on a Kairotic Practice" by Emma Cocker (Nottingham Trent University)
- 9. "Jesurun's Digitalist *Firefall*: Staging the Analogical Relation as Cognitive Performance" by Christophe Collard (Vrije Universiteit Brussels)
- "Touch and Gesture as Aesthetic Experience: Performing Apps" by Maria Engberg (BHK, Karlskrona)
- 11. "Adventures in Live Writing" (artists' pages) by Mark Greenwood and Nathan Jones
- 12. "The Dance without the Dancer: Writing Bodies in Digital Texts" by Laura Karreman (Ghent University)
- 13. "Send: Act: Perform" by Rosemary Klich (University of Kent)
- "Digital Performance in Many Dimensions" by Sebastian Melo (independent generative video artist) and Nicolas Salazar Sutil (University of Surrey)
- 15. "Hypertext Reading: A Retro-Projective Performance" by Alexandra Saemmer (University of Paris 8)

- 16. "Hacking Choreography" by Kate Sicchio (University of Lincoln)
- 17. "On the Screen Floor: Exploring Dances of Digital Language and Writing" by Danae Theodoridou (University of Roehampton)
- 18. "Virtual Dramaturgy: Critical Digital Practice in Kris Verdonck's *M*, a Reflection" by Kristof van Baarle, Kris Verdonck, and Christel Stalpaert (Ghent University)
- 19. "Transitional Materialities and the Performance of JavaScript" by Nathan Walker (York St. John University)
- 20. "Gossip Girl Goes to the Gallery: Bernadette Corporation and Digitextuality" by Heather Warren-Crow (University of Wisconsin, Milwaukee)

Publication date is February 2014. Although this is beyond the end date of the ELMCIP project, these papers will also be added to the ELMCIP Electronic Literature Knowledge Base.

CURATION OF THE PERFORMANCE PROGRAM AT REME-DIATING THE SOCIAL, EDINBURGH COLLEGE OF ART

The digital performance event at Edinburgh College of Art formed a significant part of the final conference, *Remediating the Social*. A fuller description of the event is given by Simon Biggs in his report in this volume.

There were two interesting issues that emerged from this in relation to the Bristol seminar. The first was that certain artists who were initially designated as part of the digital performance event were located within the "artistic" program at Inspace, the New Media Scotland Gallery. Donna Leishman for example, (see above) performed *Borderline* in the gallery space. J. R. Carpenter's work was shown as an installation at Inspace and presented as a performance on the night of the opening. This is an indication of the extent to which performance within digital literature is a highly fluid concept. It is not easy to specify what is or is not a performance and where it spills over into other forms of verbal display. In fact, performance can and does take place in a number of different venues and contexts, each of which subsequently affects or alters the ways in which the work is received and understood.

The second issue is that there was a dedicated space for all the performances within the College of Art. This was a raised stage with lighting, digi-

tal projection, and amplified sound. This tended to homogenize the work into a specific form of audience/performer relationship. It reduced the possibility of the digital textwork engaging with the space itself and let it be determined by the space. The work was thus site-determined rather than site-specific, in Robert Irwin's taxonomy. This was largely a question of logistics and time. A performative engagement with the space requires an immersion in that space in order to respond to it. That was not possible as a performance program within a three-day conference. However, it does indicate the versatility of electronic literature performance and how it has to consider its nature, space, and context in ways in which page-based literature does not.

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PROJECT REPORTS

ELMCIP ANTHOLOGY OF EUROPEAN ELECTRONIC LITERATURE

MARIA ENGBERG, TALAN MEMMOTT

INTRODUCTION AND SUMMARY

The ELMCIP group at Blekinge Institute of Technology (BTH) in Sweden was in charge of producing an anthology of European electronic literature, a key outcome in the ELMCIP project: ELMCIP Anthology of European Electronic Literature. By providing an anthology with creative works and relevant pedagogical material, ELMCIP extends its work into European classrooms, providing teachers and students with an educational experience of network culture. The works are written in a number of different languages and thus reflect the diversity of European electronic literature while also foregrounding how electronic literature represents a uniquely twenty-first century networked, globalized culture that uses communication patterns, aesthetic registers, and literary voices that transcend national boundaries.

The ELMCIP project was partly designed to bring together the disparate groups of writers, teachers, and researchers that were active in clusters throughout Europe. From 2005 onward, during, for instance, important gatherings in London (E-poetry festival 2005) and Paris (E-poetry festival 2007), European and American writers and researchers began to meet more frequently and were able to share their experiences with colleagues outside of their immediate cluster or country. Still, the North American dominance in the field with established organizations—like the Electronic Literature Organization and the Electronic Poetry Center—and main international conferences was evident in 2009 when the ELMCIP project began to be articulated. A key concern for ELMCIP was to address this lacuna regarding supportive structures for electronic literature research and teaching in the European cultural landscape, a need that was clearly observed at the time of the project's start in 2010. The anthology was thus designed to be a gathering of important European literature as well as a pedagogical resource.

In addition, the project sought to extend, within the multicultural and multilinguistic context of Europe, practices and theories in electronic literature

^{1 &}lt; http://anthology.elmcip.net/.

to study how electronic literature manifests in conventional cultural contexts, such as exhibition, theater, and publishing, as well as across language groups: evaluating what effects result from situating electronic literature in these contexts.

Works were selected based on four pre-established criteria:

- 1. European diversity: to represent a broad cross-section of authors and artists from different European cultures.
- 2. Formal diversity: to represent a broad sampling of approaches to electronic literature, demonstrating the influence of multiple modes of practice and different types of interdisciplinary art practice.
- 3. Historical relevance: preference will be given to submitted works deemed historically important to the development of electronic literature communities in Europe.
- 4. Pedagogical relevance: as part of the selection would be works appropriate for teaching in secondary and university classroom settings.

BACKGROUND

The selection criteria of the anthology along with other outcomes prompted intense discussions at the early stage among the project members. The overarching question was how we would delineate and define *European*. We saw a need to address the cultural and linguistic diversity of Europe as not only defined officially through national languages; rather, we sought to address the countries in Europe with immigrant communities, residents who live and work in Europe but are citizens of non-European nations and so forth. The inclination was, therefore, to be inclusive rather than exclusionary. The discussion prompted reflection about the innate international property of electronic literature as clusters of networked communities across the globe with certain regions or centers of higher density of artists and scholars. In addition, we wanted to open up for links in the project itself through the ELMCIP Knowledge Base, beyond Europe's boundaries, to more accurately reflect the nature of these networks.

The BTH project members, Principal Investigator Maria Engberg, Co-investigator Talan Memmott, and postdoctoral researcher David Prater all had prior experience collecting, editing, and publishing collections of literary works. Talan Memmott was coeditor (with Laura Borrás, Rita Raley, and Brian Kim Stefans) of the second volume of the *Electronic Literature Collection* (2011) and was editor

of the online literary journal *Beehive* from 1998-2003; David Prater was Managing Editor at the Australian-based online *Cordite Poetry Review* (2001-2012); and Maria Engberg worked as contributing editor to ELINOR (elektronisk litteratur i Norden) and the US-based Electronic Literature Directory (2009-2012).

An integral part of the anthology is the inclusion of pedagogical resources. This makes the ELMCIP anthology different from other anthologies or collections in the field. The decision to include teaching material, such as syllabi, exercises, and presentations about educational projects and experiences, was grounded in the need to introduce electronic literature to educators as an aesthetic and media practice. As digital literacy becomes a crucial skill in contemporary society, electronic literature in secondary and tertiary education can provide insights into the operations of digital multimodality and textuality. Furthermore, there is a need for analytic skills that take into account the affordances of computational media. These dimensions of digital culture are addressed in the material included with the anthology.

SUBMISSION AND SELECTION PROCESSES

STRUCTURE: OPEN CALL, SELECTION COMMITTEE

The works were selected via a peer review process with an open call. The open call was disseminated internationally via mailing lists, websites, and social media sites and was open between April 12 and September 30, 2011. When the submission period closed, the works were reviewed by a committee consisting of all members of the consortium and advised by the ELMCIP Advisory Board, with the final selection being made by the editorial team.

As mentioned, the committee based their selections on primarily three criteria that we articulated from the original selection criteria. A work was chosen for further consideration once we determined that it satisfied the European qualification (by author's nationality or country of activity). The three criteria were literary quality (concerning the various literary forms and genres of the field as well as the quality or relevance of the writing in the work); aesthetic considerations (works that represented sophisticated, interesting, and engaged aesthetic forms); and, finally, pedagogical relevance (striving toward diversity in terms of genres and style of work for pedagogical purposes).

We received fifty-eight submissions in total. They represented the following European countries: Switzerland, France, Italy, UK, Greece, Sweden, Nether-

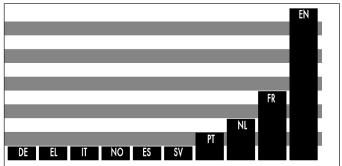
lands, Spain, Norway, and Slovakia, and ten languages: Catalan, Dutch, English, French, German, Greek, Norwegian, Portuguese, Spanish, and Swedish. Media formats for the submitted work included scripted HTML, interactive applications for the screen and for mobile device, audio, and video. From the fifty-eight submitted works, the editors removed work that did not fit the submission criteria or was non-functional, reducing the considered works to twenty-nine. These were then forwarded to the consortium and advisory board for consideration.

Alongside the editorial process with the anthology, the team also worked on researching the pedagogical experiences, primarily within Europe, that in some way included electronic literature. The postdoctoral researcher David Prater assisted in the initial research into the major places in Europe where electronic literature is taught. As Engberg writes elsewhere in this volume, there is evidence of various disciplinary contexts for the teaching of e-lit at various levels of education. Reaching out to the ELMCIP partners and their extended networks, we gathered a set of representative educational assets that we deemed would enhance the collection's value as a teaching resource and introduce teachers new to the field to some of the methods and approaches already used in schools and universities. The pedagogical dimension of the project continues in the ELMCIP Knowledge Base, where teaching resources are referenced as well as archived. Although the pedagogical material is not directly linked to the works chosen (primarily because many of the works submitted were unpublished and new works that at the time had yet to be included into syllabi), the works referenced in the teaching material share common main aesthetic, rhetoric, and literary strategies with the works in the anthology.

The final selection of works for inclusion was made by the editorial team, with consideration for how the consortium ranked the work and further assessment based on the selection criteria. In the end, the anthology includes eighteen creative works in ten European languages, from nine different countries.

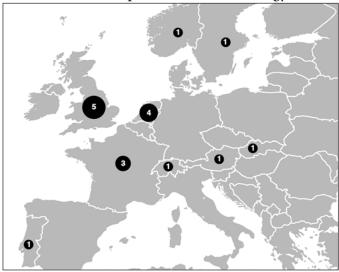
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Languages represented in the Anthology



Languages represented in the Anthology: German 1, Greek 1, Italian 1, Norwegian 1, Spanish 1, Swedish 1, Portuguese 2, Dutch 3, French 5, English 11

Countries represented in the Anthology



Countries represented in the Anthology: (Clockwise from top) Norway 1, Sweden 1, Slovakia 1, Austria 1, Switzerland 1, France 3, Portugal 1, United Kingdom 5, Netherlands 4

As the reader will note in the charts above, English is the dominant language within the anthology despite the fact that the origins of the works are distributed across Europe. In addition, some European languages are included in the anthology (Greek, Italian, Spanish, and German) though there is no representative work from the countries associated with these languages. Some of the languages indicated above are evident in one individual work—Andreas Maria

Jacobs' *La Resocialista Internacional*, which includes Dutch, English, Greek, Portuguese, and Spanish. English is used not only in works from the United Kingdom, but also in the works from Austria, France, the Netherlands, and Slovakia.

The works in the anthology represent various aesthetic, poetic, and narrative strategies. Technically, the works range from HTML and Flash to movies. One of electronic literature's earliest and most resilient forms is the hypertext. Several works in the anthology, such as *Tramway* (Saemmer), *Underbelly* (Wilks), and *Väljarna* (Heldén), build on and expand the hypertextual arrangement of textual nodes that the reader peruses and explores. Spatial properties of electronic literature allow the reader to engage in a reading process that foregrounds participation, exploration, and, to paraphrase well-known hypertext author Michael Joyce, a rereading akin to inhabiting a map (*Othermindedness* 2001). Equally important and intertwined with spatiality is temporality. J.R. Carpenter's *Along the Briny Beach* and J. Piringer's *RepeatAfterMe* both invoke the temporality of codebased works that foreground processes of text generation that in turn produce new reading experiences each time.

Animation and movement have been a key concern for electronic literature since early visual poems were generated by computers from the 1950s and 60s onward. In the anthology, some works emphasize animation as a crucial component of meaning-making: Bootz's *Retournement* is described as a "syntactic animation" whereas O. Ormstad's *Svevedikt* couples the aesthetics of Concrete poetry of the 1960s with a visuo-temporal process of signification. Finally, interaction and reader/user participation are vital components of several of the anthology's works, e.g. Suter's and Bauer's locative smartphone poem *AndOrDada*, Husárová's and Panák's *BA-Tale*, Bouchardon's and Volckaert's *Loss of Grasp*, and Mencía's *Connected Memories*. Each in their own way, they rely on, push against, and play with the user's interactions.

Pedagogical material has been included with the works, as well as video documentation of the talks from the Karlskrona 2011 workshop focused on electronic literature and pedagogy. The materials reflect the range of approaches to teaching electronic literature that teachers currently use in European and American universities and high schools, and these materials offer educators models to follow in their own pedagogical endeavors. The anthology thus becomes not just a collection of European literature but an important resource for teachers and students, as well as casual readers. The pedagogical material was collected from

teachers that work in different milieus, ranging from research universities, to lifelong learning centers, to high schools; from humanities departments and arts programs, to engineering-focused programs. The aim is to provide both insight and inspiration to how electronic literature can be taught in its own right and to foster digital multimodal literacy for wider purposes. Therefore, the pedagogical material includes syllabi, technical and literary exercises, assignments based on particular kinds of works, and essays discussing pedagogical concerns for the field at large.

DESIGN AND DEVELOPMENT

The design and development of the anthology was conducted by Patrik Thorsson (as lead programmer and web designer), Talan Memmott, and Maria Engberg. Carefully researching the collections and anthologies already published in the field as well as other relevant materials, we set up a series of criteria for design and development.

Since one of the primary agendas for the anthology was to supply a catalog of creative works and pedagogical materials for educators, the design and functionality for the anthology had to be clean, easy to use, and as free of unnecessary embellishment as possible. The interface had to provide direct access to the collected works and materials while also providing viewing options and information that would be of interest to educators and students alike. To these ends, the structure of the anthology is easy to navigate, requiring just two clicks to reach a page for an individual work, and each individual work page includes an author statement, an editorial statement, and relevant technical information. In addition, the works included in the anthology can be searched, sorted, and viewed by language.

PUBLICATION AND DISTRIBUTION

The anthology was released during the final ELMCIP conference *Remediating the Social* November 1-3 in Edinburgh, UK. During this event the anthology was distributed in its USB form to the participants alongside the conference catalog. On December 17, the anthology was released online on the ELMCIP website. As part of the ongoing distribution plan, the anthology is and will be continuously distributed to national and university libraries, schools, universities, archives,

^{1 &}lt; http://anthology.elmcip.net>.

individual researchers, and other interested parties in Europe and elsewhere. The National Library of Sweden (Kungliga Biblioteket) has received the anthology and plans to incorporate it into their collections. We are in contact with several national libraries about including the USB version of the anthology as a publication, the prospect of which requires that the library in question address a different publication medium than they normally deal with.

During the spring 2013, we were producing the second printing of the USB version to distribute further to European archives, libraries, and universities. In addition, we are sending copies to North and South American libraries and archives, such as the Library of Congress (US), as well as to research labs for archiving. Our aim is to distribute it as widely as possible in order to highlight the ELMCIP project and the ongoing ELMCIP Knowledge Base, which continues to be a research and teaching resource.

CREATIVITY AND INNOVATION IN PRACTICE

THE HYPERSTITIAL POETICS OF NET-WORK MEDIA

SIMON BIGGS

Remediating the Social was a conference and exhibition, with a focus on creative works and activities, developed within the domain of new media arts that feature a particular engagement with literary form—an area often known as electronic literature or digital poetics. This text will treat these terms interchangeably and will focus on the exhibition component of the project.

Remediating the Social engaged creativity as a property emergent from a multi-modal social apparatus rather than, as is often assumed, an attribute of individual or group human agency. The event sought, as many artists who work with digital media do, to problematize conventional notions of authorship. The key proposition was formulated within the context of an expanded understanding of individual and collective ontology that regards selfhood, in large part, as a socially contingent construct and, in this sense, a creation of the social space from which it emerges and is sustained within. Here, creativity is apprehended as a reflexive property of the inter-agency of social interactions, rather than as an activity concerned with the origination of novel things or a capability invested in an individual or group of individuals.

In this context, it is recognized that social agents might not be people, whether individual or collective, but also systems, devices, media, and artifacts. In this respect the role of technology is considered of particular import, especially the computer which, with a measure of autonomy, is a technology with a particularly distinct social agency. Further to this, as a linguistic device, the computer can also be considered part of, indeed a form of, language and thus implicated not only in communication but also social formation; if we are to accept that social formation is driven, in large part, by linguistic parameters, as has been argued by numerous linguists, cognitive scientists, and philosophers as diverse as Noam Chomsky, Daniel Dennett, Marshall MacLuhan, and Michel Foucault.

Remediating the Social sought to explore this proposition by considering instances of creative practice that employ digital and networked systems, in their structure and function, and that evidence these emergent characteristics in the processes involved in their making. This is how we apprehend creative works that are critically reflexive concerning their "born digital" status. The focus of the

exhibition was social media—but not social media in the sense of media that are concerned with enabling social interactions (e.g.: Facebook or Twitter,² although these might have been within the remit of the event and incorporated into specific artworks) but media that are part of the apparatus we identify as the social in action. The most fundamental medium that exhibits this property is language itself. The Foucauldian concept of the dispositif is directly relevant here, and a helpful proposition in aiding our insights, particularly in its engagement with discourse and language within a context where agency need not be identified only, or even primarily, with human intention and action. As we have already observed, the computer is itself a linguistic system, thus it is probably no surprise that many of the artists encountered in this context, where the digital and computation are key to practice, often work with language and literary form. However, as was evident in many of the works, the linguistic was deployed within a complex material and social context, echoing Gilles Deleuze's questioning of the dispositif.

Foucault's philosophy is often presented as an analysis of concrete "dispositifs" or apparatuses. But what is an apparatus? First of all, it is a skein, a multilinear whole. It is composed of lines of different natures. The lines in the apparatus do not encircle or surround systems that are homogeneous in themselves, the object, the subject, language, etc., but follow directions, trace processes that are always out of balance, that sometimes move closer together and sometimes farther away. Each line is broken, subject to *changes in direction*, bifurcating and forked, and subjected to *derivations*. Visible objects, articulable utterances, forces in use, subjects in position are like vectors or tensors. (2007)

The description of the structure of the apparatus in this text evokes many key aspects of digital network media and its literary form, suggesting the viral dynamics that link the elements of the network. Here the origin of things and their effects can be difficult to determine.

This was observed in the introductory catalog essay for the *Remediating the Social* exhibition:

artists and authors involved in Remediating the Social work with digital

¹ Twitter was employed, along with the Bambuser video streaming service, in *Remediating the Social* to enable remote interactive participation in the conference. Remote attendees were able to observe proceedings via a live video stream and ask questions or make comments to the conference via a Twitter feed that was video projected on one of the conference hall walls. Whilst the conference attracted over 100 delegates to physically attend the event the streaming records show that over 540 remote attendees logged into watch the live video stream, over a three-day period, and the Twitter feed was composed of 636 individual Tweets.

and networked systems. One way or another, they work with computers. Their practice engages people, individually and collectively, as mediated by (sometimes generated or emergent from within) machines. Such practice demands we ask, where is agency? This question is key to the work of many of these artists. Indeed, one would suspect that many of the artists and authors, whose work is documented and discussed here, choose to work with computers and networks because the issue of agency is key to their inquiry—they seek to question the inter-agency of author, reader and medium, often by problematising our apprehension of where the work originates. They ask us to consider how agency might be identified within constantly changing patterns of socially contingent inter-agency. (Biggs 2012)

The works for *Remediating the Social* were all commissioned for the event and thus the artists engaged the event's theme from the outset. The works that emerged from this engagement shared certain attributes, particularly in relation to their mediality, but offered diverse views on, and approaches to, the key premise of the exhibition. This text will seek to unpack and interpret each of the art works in the exhibition from this perspective.

The works and artists featured in the exhibition, in the alphabetical order of the artists' last names, were *Huis Clos / No Exit* by Annie Abrahams, *Re:Mix* by Mark Amerika, *Garden Library Database* by Romy Achituv, *Search Trilogy* by Johannes Auer, Beat Suter, and René Bauer, *Small Uncomfortable Reading Poems* by Philippe Bootz, *_The_Tem(Cor)p(oral)_Body_* by Mez Breeze, *Duel* by Andy Campbell and Kate Pullinger, *The Broadside of a Yarn* by J. R. Carpenter, *Common Tongues* by John Cayley and Daniel Howe, *Baby Work* by Shu Lea Cheang, *B A C K L I T* by cris cheek, *Natural History* by Johannes Heldén, *Exquisite Code* by Brendan Howell, *Absurd in Public* by Aya Karpinska, *Borderline* by Donna Leishman, *The Final Problem* by Judd Morrissey and Mark Jeffery, and *Textual Skyline* by Jason Nelson.

THE WORKS

Annie Abrahams' project, *Huis Clos / No Exit*, was a distributed performance work involving five performers. The performers were all linked through an artist's developed and authored multi-channel audiovisual conferencing software platform that allowed the participants to all be seen and heard simultaneously by each other and the audience within a single computer desktop window. Each of the performers was at a different international location and had a distinct first

language. They were Annie Abrahams (Netherlands), Ruth Catlow (UK), Ursula Endlicher (Austria), Nicholas Frespech (France), and Igor Stromajer (Slovenia). The premise of the work was that the performance would emerge from the interactions of the performers, who were disallowed from speaking in any shared spoken language.



Fig. 1 Performance of Huis Clos.

The performers were given three themes to engage, concerning the *new aesthetic*, the newer aesthetic, and the assertion that the Internet is not as good as it was yesterday. The interpretation and articulation of the themes was left to the individual performers to determine as they wished. The performance evolved, over a period of twenty minutes or so, as the performers, often hilariously, sought to share their thoughts on the themes and develop a degree of discourse with each other. Was this an example of an identifiable community emerging from some form of innate shared humanity or an exposition of our limits as human beings to communicate and understand one another? Arguably it was both, portraying an equivocal view of human interaction as pervaded with potential failure as it was pregnant with (often serendipitous) creative potential.

Re:Mix, by Mark Amerika, was the artist's response to the curated exhibition and conference papers, developed in the later stages of the event's gestation. The premise of Amerika's contribution—in line with much of his recent work on remixing and glitch aesthetics—was to present the work as a response to other contributions, establishing an explicitly discursive relationship between his own contribution and the other works in the exhibition. Whilst the piece built on the consideration and re-reading of other works the mode of presentation had the feel of an improvisation, as is often the case with works that employ remix or mash-up tech-

niques. Amerika's contribution to the catalog even remixed and referenced historical pop-rock, in the form of Pink Floyd's "Welcome to the (Remediated Social) Machine."



Fig. 2 Mark Amerika performing Re:Mix.

Romy Achituv's *Garden Library Database* employed a remix strategy, although with almost the opposite intention of Mark Amerika's intervention. In this work the *first* reader is not the artist but the audience, the library's user. As with any lending library, the user can borrow books and, when read, return them. However, unlike a conventional library, the borrower can return the book to anywhere in the library they determine is appropriate, using a color coding system to indicate where they have chosen to lodge the volume. This renders the library a constantly shifting colorful taxonomy of material, reflecting the understanding by the readers of a book's subject, rather than that of a librarian or Library of Congress classification. the *Garden Library Database* thus functions as a cocreative remixing of knowledge classifications, a dynamic taxonomic mapping of the contents of the books the collection contains. This in turn drives a continuous process of change in the visual coding system that describes that mapping, creating an animated visual structure that allows us to reflect on how knowledge can be represented and interacted with as a living epistemology.

Search Trilogy was an installation and performance (in the case of Search Sonata) by Johannes Auer, Beat Suter, and René Bauer. In these closely related works, texts found through employing Internet search algorithms are converted into sound poems in real-time. In this work, not only are the search results "mashed-up" into new texts, but the algorithms that enable this capability are

themselves the outcome of a process of bricolage, with code acquired from the multiple authors as well as historical sources, as diverse as 1950s computer code experiments to J. S. Bach's rule-based musical systems, in which musical staves were classified as letters of the alphabet, facilitating exchange between musical and textual symbolic forms. In *Search Trilogy* these structured approaches to the generation of data (music and/or text) are reverse-engineered to enable the emergence of a hybrid media-poetry machine, existing somewhere between search engine, generative music system, and audio performance platform. For *Remediating the Social*, the work *Search Sonata* was performed live by Christiane Maschajechi, interpreting the textual data and sonic structures resulting from the live search process as structured improvised song emergent from what was effectively a complex constraint-based system—an algorithmic process that explicitly rendered the common linguistic foundations of the human-machine apparatus.

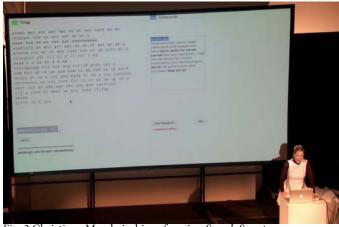


Fig. 3 Christiane Maschajechi performing Search Sonata.

Philippe Bootz's *Small Uncomfortable Reading Poems*, like *Search Sonata*, also exist in both installation and performance forms. Again, similar to *Search Sonata*, and particularly in its performed form, *Small Uncomfortable Reading Poems* encouraged reflection upon the hybrid human-machine system that is person, computer, and language together. Arguably, a key concept that is helpful for fully appreciating Bootz's work is that of entropy. Philippe Bootz has two doctorates in the sciences (Physics and Information Science) but works primarily as a writer and artist exploring the algorithmic potential of computer based poetry. However, his background in theoretical science gives him a deep appreciation of

theories such as the Third Law of Thermodynamics. While entropy offers us a framework for understanding how energy is conserved—with systems perpetually and unerringly running down towards stasis, as energy moves from one state to another—it also gives us a model for the poetic principle. As energy in a system increases, the number of states the system can be in also increases. Poetry could be viewed as that form of language where negative-entropy is at its maximum, where the polyvalence of potential symbolic states is at its most amplified, allowing us to engage multiple interpretations of even simple discrete phenomena, as a hyperstitialized form of *reading*.

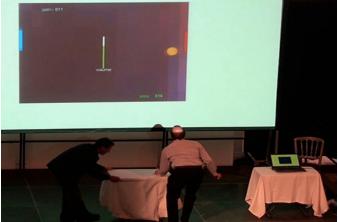


Fig. 4 Bootz performing one of the *Small Uncomfortable Reading Poems* which involved a game of Pong operated with a laptop and a mouse, which were being slowly pulled away from each other as he ran frantically between them.

The term hyperstitial emerged in the mid 1990's to describe those elements of web pages, often advertisements, that are displayed whilst the main elements of a web page are rendered by the web browser. However, just as the term interstitial can be employed to indicate the gaps between things in general, the term hyperstitial can be repurposed to describe those points of interpretation between things that can exist in multiple states—something we are familiar with from poetry. The proposition here is that the hyperstitial can be considered as kind of "pleasure principle" of the poetic, the small moment of rapture that emerges when interpretation is in a suspended and/or equivocal state. Deleuze's description of the dispositif as "Each line is broken, subject to changes in direction, bifurcating and forked, and subjected to derivations" (ibid) resonates here, drawing our attention to the hyperstitial in action. An-

other key aspect of Bootz's approach to language and performance is humor, with the artist's performative recognition that entropic forces govern not only the physical world but also the processes of reading, writing, and performing. Thus, a Bootz performance shares the tragi-comic characteristics of a Buster Keaton film, as both performer and audience await the (entropic) outcome of the event, with the poet-performer ultimately unable to bridge the yawning physical (interstitial) gap that the performance space becomes.

The work of Mez Breeze, represented in *Remediating the Social* by the projected text work _*The_Tem(Cor)p(oral)_Body_*, is another relevant example here, allowing us to reflect further on a poetic principle that might be understood as a form of negative-entropy. Mez's work, written in her own language Mezangelle, exists as a hybridized human-machine code that can exist in multiple states at the same time, depending on how you choose to interpret it. In this sense Mezangelle is, in its foundations, a poetic language—even though in many ways it resembles computer code. This equivocal set of characteristics can, itself, be considered as a property of a hyperstitialized linguistic form which encourages us to consider the shared ontology of people and machines. A Mez text demands that we carefully consider every step in its interpretation, requiring of its reader a machine-like capacity to parse the text between multiple states.

Mezangelle's unique polyvalent form, employing square and curved brackets and other typographic structuring elements more likely to be encountered in scientific programming languages like C, Java, or Prolog, demands the reader never falls back on linguistic assumptions or common textual tropes. In this context, every instance of reading is multiplied into a number of different threads that need to be simultaneously sustained, the meanings emergent not from any single or combination of threads but from the spaces between them. This form of hyperstitial reading presents as a symbolic representation for the coevolution of people and machines, proposing a form of emergent *cyborg pidgin*. As with Bootz, we are left suspecting that the artist derives perverse pleasure from the tragi-comic proposition that humans and machines are enmeshed within the forces of inevitable entropy. In this respect such projects allow us a particular perspective on what might be implied in the proposition and processes of remediating the social.



Fig. 5 Image from _The_Tem(Cor)p(oral)_Body_.

By contrast, Andy Campbell and Kate Pullinger's work Duel appears, on some levels, to be a conventional novel, employing the usual narrative forms of plot and characterization. However, Duel exists in the hyper-spatialized and temporalized form of an interactive multimedia serialized mystery-thriller, in some respects sharing more with the format of a dungeon and dragon's puzzle game than that of the novel. Duel has been developed to be "read" across multiple media devices, such as desktop and laptop computers, tablets and other mobile devices, including smart-phones. Exploiting the geo-locative, and other, sensors that such mobile media devices generally possess, the narrative of the work is encountered not in the linear space of the printed page but the fragmented and hyperspatial form of a geo-located and urbanized Internet. The premise of the narrative is that of the murder-mystery and the reader is drawn into this as much as protagonist as in the more familiar role of observer, their actions in the real world having direct consequence for the development of the story. The narrative of *Duel* is time-constrained in the real world (delivered over a fixed time frame), enveloping the reader in a time-space that exists both within the narrative and in their everyday life. The work draws on its many readers' experiences and interpretations to add further layers, allowing the work to gain complexity through a process of crowd-sourced or communal active reading.



Fig. 6 Kate Pullinger and Andy Campbell perform Duel.

J. R. Carpenter's *The Broadside of a Yarn* also employed geography as a key element, using the map as its central visual and structural trope. Carpenter's works, over a period of years, have employed generative techniques in their writing. In this new work, she has sought to develop a context for authoring and encountering such texts. To quote the artist:

The Broadside of a Yarn is a multi-modal performative pervasive networked narrative attempt to chart fictional fragments of new and longago stories of near and far-away seas with nought but a QR code reader and an unbound atlas of hand-made maps of dubious accuracy. (2013)

The central premise of *The Broadside of a Yarn* concerns what might happen when the less than reliable mappings of a remembered childhood in Nova Scotia, Canada, are reimagined and remapped onto the locale and characteristics of contemporary Edinburgh, Scotland. In short, the work was conceived as a response to place—or, rather, places both remembered and yet to be encountered—but within the framework of an unreliable, or even devious, writer's intent. As Carpenter explains,

The Broadside of a Yarn remediates the broadside, a form of networked narrative popular from 16th century onward. Broadsides were written on a wide range of topical subjects, cheaply printed on single sheets of paper (often with images), widely distributed, and posted and performed in public. During the Remediating the Social exhibition, The Broadside of a Yarn will be posted as a grid of A3-sized square maps at Inspace gallery, and freely distributed as broadside-sized sheet. (2013)

The work, once installed in the dual context of the gallery and the city, was then performed by the reader as they employed the QR code reading and geolocative capabilities of their mobile devices to interpret the artist's imagined maps as guides to their own journeys through the city. Notably, Carpenter was not alone amongst the artists in employing such a strategy to enable the emergence of a crowd-sourced psychogeography, as we will see.



Fig. 7 J.R. Carpenter demonstrating The Broadside of a Yarn.

John Cayley and Daniel Howe's *Common Tongues*, like so many of the works in *Remediating the Social*, directly engaged the multifaceted and polyvalent nature of language when it is hyperspatialized and temporalized through the Internet. *Common Tongues* is part of Cayley and Howe's larger *Readers Project*, which seeks new apprehensions of what reading can be in a time of networked writing. Based on *How It Is*, a text by Samuel Beckett, *Common Tongues* engages the Internet not only as a new platform for writing but as the context for new forms of reading. To quote the artists:

The indexing and statistical analysis of everything that has been inscribed into the realm of big data allows us to search and retrieve textual fragments from a vast, increasingly comprehensive literary and linguistic corpus in arrangements that are first "read" by algorithmic and statistical models and then offered up to us in finely composed—and often illustrated, multimediated—pages that precede and predetermine any further or deeper "human" reading. Perhaps this is how we are now inclined to read, as our relationship with language and language-making changes fundamentally? Is the algorithmically composed reading "social" or "posthuman?" Is our subsequent "deep" reading a solipsistic throwback? (2013)

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In this project, the artists propose that reading is as much a social as personal activity, performed in the shared hyper-mediated linguistic data-space that is the Internet. In this regard, Common Tongues directly engages the core conceptual premise of Remediating the Social.

> ook to me about sixteen and to crown all glorious weather egglue sky and scamper of little cl ds I have my back turned to m and the girl too whom I hold ho holds me by the hand the e I have we are if I may believ
> Fig. 8 An interactive projection of the Common Tongues reader.

Shu Lea Cheang's Baby Work approached the concept of the social from an entirely different perspective, proposing a socio-economic critique of how the new reading and writing systems we employ are manufactured, particularly in relation to child labor and other highly suspect manufacturing processes we choose to turn a blind eye to when using our tablets and laptop computers. Entering the installation space, the visitor was required to navigate around a floor littered with the thousands of individual keys stripped from hundreds of computer keyboards. Visitors could select these keys and fix them to still fully functional circuit boards, ripped from their keyboard cases and mounted on the walls nearby. As keys were added or removed from the keyboard *mural*, the visual appearance of the work evolved, and so too did its aural condition. The arrangement of the keys on the circuit-wall directly controlled the selection and sequencing of numerous audio samples that further evoked the conditions of contemporary labor.

Baby Work reflected on the conditions of labor in emerging economies not only in its presentation but also its production. To prepare the work numerous nimble hands and fingers were required, spending hundreds of hours in the gallery, stripping the keys from the keyboards and carefully removing their circuit boards, without damaging any of the delicate connections or substrates. In order to achieve this minor feat of Sisyphean labor, a general call was put out to students within the college hosting the event. Of the many who responded, a core of around eight students provided the bulk of the labor. Entirely by accident, but ironically, all of these students were of Chinese origin like Shu Lea. In a period when we regularly read of the questionable labor practices in Apple's Chinese fabrication plants, the spectacle of the preparation of *Baby Work* was as evocative of the themes the work addressed as the final exhibit.



Fig. 9 Remediating the Social exhibition visitors interact with Baby Work.

cris cheek chose to focus on the social in the physical form of the intimately personal in his work *B A C K L I T*. A deceptively simple performance piece, the work involved the artist sitting on the stage with their back to the audience. A powerful video projector projected images onto the naked upper-torso of the artist, rendering it a three dimensional screen—what the artist has termed an "illuminated figure." The projected images were carefully selected and framed such that each precisely interacted with the form of the body, creating a phenomena that was far richer and visually disturbing than can be evoked in this description. The images themselves were crowd-sourced by the artist from other artists and collaborators from around the world, through the many listservs and other social media channels we routinely use in our contemporary social and professional interactions. In a very real sense, the artist was offering up their body for others to inscribe as they wished through the images they proposed, bringing into consideration the place, role, and representation of the body in the virtual informational spaces of networked culture.

³ Quoted from the original untitled proposal for *Remediating the Social* by cris cheek.

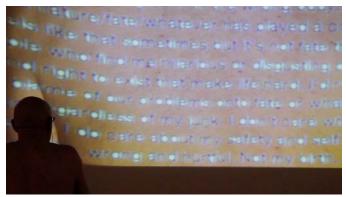


Fig. 10 cris cheek performs $B \ A \ C \ K \ L \ I \ T$ at the Edinburgh College of Art.

Natural History, by Johannes Heldén, like many of this artist's other projects, explicitly reflects upon processes of entropy in nature, echoing concerns that are evident in many of the other artists' works presented in the context of the *Remediating the Social* exhibition. However, where many artists here are concerned with entropy in social and/or technological systems, Heldén's focus is upon these dynamics in nature and how this innate principle of life pervades our social and personal formation. Positing nature as both abundant with promise and threatening with chaos, Heldén states:

In my work I let nature and technology meet, to create meaning and new structures in the flow of information, structures to point out cracks where new possibilities, in language and aesthetically, can shine through and create order in chaos. Each artwork becomes a fictive system, its main operators being technology and nature, hope for the future and dystopia. Even though reality dissolves and what's left is a meaningless jumble, there is still something that gives hope, an idea of progress. (2013)

Heldén could be considered here to be implicitly referencing the concept of the hyperstitial, previously discussed in reference to the work of Philippe Bootz and Mez Breeze. This appears to be a principle evident, to a greater or lesser extent, in each of the artist's works discussed here. *Natural History* was one of the few works in the exhibition that featured a substantial physical artifact produced in advance of the event by the artist. A plan-view model of a group of small islands, mounted on the wall, functioned as a three dimensional projection screen which the viewer could interact with to reveal further layers of information and narrative, creating in effect a geographic palimpsest. Palimpsests are texts—or, more

precisely, pages—that incorporate their histories within them, even if often semierased. In *Natural History*, referencing Charles Darwin's concepts of natural selection and evolution, the subject is, however, not the past but our possible imaginary futures. The work existed as a visual archaeology of the future, a form of sci-fi mirage that the reader navigated in the mini psychogeographic space of the installation, as a series of projected layers and veils of visual and textual information.

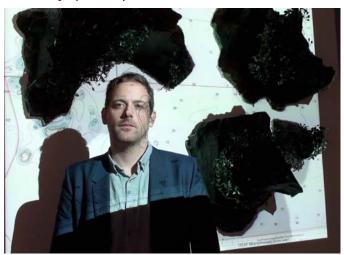


Fig. 11 Johannes Heldén with his installation of Natural History.

Another project that existed as a palimpsest, but in this instance one that exists in the temporal rather than spatial dimension, was Brendan Howell's *Exquisite Code*. Referencing the surrealist pastime of the exquisite corpse, in this durational performance a group of writers are engaged in a process of collective writing that is governed not by a single authorial vision, nor by some form of group determined narrative, but by a small piece of software the artist has dubbed the *edit worm*. This is a software device that iteratively and interactively engages with human writers, directing, interpreting, and redacting the emerging text in real-time. Howell has envisaged the human writers as small algorithmic sub-units or functions (or cogs, to use a mechanical term) in a larger writing system that, in many ways, functions as a literal representation of a Turing Machine—a simple logical operating system designed to demonstrate Turing's key concepts of computability.



Fig. 12 Brendan Howell (center) guides a group of authors contributing to *Exquisite Code*.

As has been outlined in the introduction to this text, *Remediating the Social* sought to envisage agency as not only a property associated with people, whether individual or collective, but also of artificial and natural systems, including technical devices, media, and artifacts. For this proposition to be meaningful it is helpful to understand Turing's work on computational theory and how it fundamentally re-envisaged, in the first instance, what *writing* could be and, secondly, what the implications of this for agency might be.

Turing's core insight was that language itself could have agency if, and this is a key point, it was able to internally represent and operate upon itself, as a symbolic continuum, so as to shift from one condition or state to another. In effect, Turing's proposition was that it could be possible to create a form of writing that was able to (re-) write itself—a process we see in the recombinant life determining activities of DNA—and through this process gain agency in relation to itself and any other elements it might interact with. Within fifty years of Turing developing this principle, civilization is pervaded and in large part determined by the computer and its outcomes.

Humberto Maturana and Francesco Varela's concept of autopoiesis developed, in part, from Turing's work, representing a core proposition in what is known as third order cybernetics. Drawing on empirical research in cellular biology, concerning how single cell organisms reproduce themselves, Maturana and Varela developed a theory for how symbolic systems could evolve with the

characteristics of agency that Turing envisaged. The term autopoiesis refers to the capacity for something to create itself and incorporates the term "poiesis" (from the Greek for "to create"):

An autopoietic machine is a machine organized (defined as a unity) as a network of processes of production (transformation and destruction) of components which: (i) through their interactions and transformations continuously regenerate and realize the network of processes (relations) that produced them; and (ii) constitute it (the machine) as a concrete unity in space in which they (the components) exist by specifying the topological domain of its realization as such a network. (Maturana and Varela 1980)

The word "poetry" also has its etymological roots in the Greek "poiesis" and suggests that poetic language is language at its most generative—where language exists in order to make novel instances of itself. Artists, such as Mez Breeze—with the form of the language she deploys—and Brendan Howell—with the hybrid human-machine apparatus he constructs as a writing machine—are seeking methods for evidencing how language does this. They create circumstances where their texts are read through a *constructive* algorithmic method, the instance of writing conscientiously and reflexively constructed by the reader each step of the way, revealing how language can be, perhaps innately is, generative. This is a theme that is recurrent in each of the works in *Remediating the Social*.

Aya Karpinska's project, *Absurd in Public*, like many of the artists' in *Remediating the Social*, deals with signs. However, in this instance, the signs are literally that—road signs. Karpinska's signs are, at first glance, similar to any road sign you would see on the side of the road in a city like New York (where the artist is based). However, on closer inspection, the symbols on the signs appear ambiguous—more evocative of connections and disconnections between things than the usual directives we expect signs to consist of. Each sign also features a QR code, which the visitor can scan with their mobile device to be taken to a web page related to the specific sign. Karpinska has described the formation of these signs as "curious mashups" designed to highlight how communities form social codes. Within the context of the exhibition, visitors were asked to interact with the signs, using their mobile devices, and they were also asked to make a contribution to the definition of each of the signs and their constituent parts, thus

⁴ Quoted from the original artist's proposal for Remediating the Social by Aya Karpinska.

facilitating the emergence of a collective apprehension of their potential meanings. However, *Remediating the Social* happened to be contemporaneous with Hurricane Sandy which cut a destructive swathe along the east coast of the United States late in 2012, flooding downtown Manhattan (where Karpinska lives) and closing New York's airports. The artist's plan had been to oversee the installation of the signs and to then perform the sign definitions collected during the event. Due to the circumstances, this was not possible, although the signs, with QR codes, were exhibited, and visitors were still able to contribute to and read the crowd-sourced definitions.

Borderline, by Donna Leishman, existed primarily as an installation that the viewer could interact with to create an audiovisual improvisation reminiscent of what a VJ, or live-coder, might produce. The physical interface to the work was two Wacom graphic tablets, with pens, rather than the usual mouse. This allowed a far more gestural approach to how the interactor could engage the work, so that there were two inputs rather than one permitted interaction—not only between interactor and machine but also between the two interactors, as mediated by the audiovisual system. Borderline was also performed by the artist, and the collaborator Steve Gibson, as part of the opening of the exhibition. Leishman cites Mark Amerika in observing that much VJ work consists of abstract material often devoid of content. Leishman's intent was the opposite of this, to produce a work with the improvised immediacy of the live performed VJ's set with the addition of carefully considered content. The main theme of the work was dualism, as represented in the duality of interaction that allowed each instance of the work to be performed into being. A key premise of the work was that the two participants directly engaged in the piece could choose to be social, working with one another to produce the work, or antisocial, creating a performance of conflict and disjuncture. Interestingly, whichever modality of engagement the interactors chose, the work never failed to manifest.

A number of works in *Remediating the Social* engaged directly with geography and urban space and did so using the geo-locative capabilities of a new generation of mobile devices. *Remediating the Social*, within the context of the ELMCIP project, seeks to avoid any reductivist analysis implicit in a technological determinist understanding of why this might be. However, as argued above,⁵

⁵ The author's essay immediately prior to this one was titled "An Evolving Apparatus" and considered the premise of the coevolution of a homo-technical apparatus as a stage in an expanded concept of human evolution (Biggs 2013).

we would propose that together, people and the systems they develop, interact as novel forms of creative practice. Geo-locative media art works, often in the form of interactive psychogeographies, are at this time a highly evident trope that should, no doubt, give us reason to reconsider how we exist in space and interact with our environment, whether natural or urban.

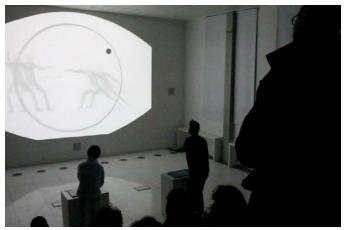


Fig. 13 Donna Leishman and Steve Gibson perform Borderline.

Judd Morrissey and Mark Jeffery's project *The Final Problem (Free Lunch Movement)* employed geo-locative technologies as key in its conception, production, and exhibition. This was a large and ambitious work, a performance, with objects and systems, filling the expansive Georgian architecture of the Sculpture Court at Edinburgh College of Art. The artists described the work as follows:

a year-long, city-specific, multi-disciplinary project encompassing elements of writing, text mining, data-visualization, and community psychogeography, woven together through algorithmic composition. The piece will loosely appropriate the conventions and mechanics of a crime novel as constraints for the filtering and framing of content and the development of narrative rules. (2013)



Fig. 14 A lunchtime performance of *The Final Problem* in the Edinburgh College of Art's Sculpture Court.

It is in Arthur Conan Doyle's short story of the same title that the mysterious criminal genius Professor Moriarty was first introduced to readers of Conan Doyle's Sherlock Holmes mystery novels. In the original story, Holmes and Dr. Watson journey across Europe in pursuit of Moriarty as they seek to thwart his secret criminal society's international activities. It is a story containing many other stories, some salient to the larger narrative and some, in classic Conan Doyle style, entirely irrelevant. Telling which was which has always been the challenge of such stories. Similarly, in Morrissey and Jeffery's theatrical exposition, it is often difficult to locate the real narrative focus of the activity or determine whether there is one. Indeed, the means by which the narrative of the work was assembled, employing "geo-specific data APIs indicating weather conditions, celestial bodies, local transportation, and historical information" (Morrissey and Jeffery 2013), suggests a process of acute creative bricolage that is unlikely to lead to anything resembling a conventional narrative.

The final work existed as a set of five large tables, one incorporating an interactive visual display (connected to a large video projection), upon which several performers enacted a discontinuous and fractured series of vignettes. These vignettes were in part determined by a performer working with the interactive display, in a similar manner to a casino croupier working the roulette wheel, in the midst of the conference and event attendees as they sat, or stood, eating their

lunch. The blurring of performance, exhibition, and functional space through this process further evoked the multi-layered unrealities of both Conan Doyle's original novella and Morrissey's and Jeffery's performance-manifesto. This was a work of tortuous allusions consisting of ever receding references that any detective-mystery lover would relish, including the rendering of the conference attendees, eating their lunches, as key elements in the work:

Free Lunch Movement is derived from the saying "there ain't no such thing as a free lunch" or tanstaafl, popularized in a science fiction novel by Robert Heinlein where Sherlock Holmes' older brother, Mycroft, appears as an intelligent machine. No free lunch is a phrase implying that nothing comes without a cost: to have one thing we like, we must give up something else. Free lunch problems are at the core of computer science and economics as well as questions as to whether software and data should be open and free. In problem solving algorithms utilizing computational random walks, no free lunch is the point at which no solution is superior to any other (because every unique optimization necessitates a trade-off of resources elsewhere). In the spirit of open data, reciprocity, and complexity, *The Final Problem* chooses lunch as its currency for exchange. (Morrissey and Jeffery 2013)

It might be possible to understand the concept of "no free lunch" as equivalent to, or even as another term for, entropy and the preservation and transfer of energy.

Jason Nelson's project *Textual Skyline* explicitly engaged social media such as blogs, RSS feeds, and community media sites, like Boing Boing and Metafilter. Elisabeth Nesheim describes its focus and intent as follows:

Our webscapes and netvilles are increasingly dominated by short bursts of emotional language, brief stabs of charged textual opinion. And every minute those words build small cities of influence, beauty and terror, creating brief communities of poetic power. *Textual Skyline* explores these notions through a net-based interactive, generative and multidimensional flash engine/interface using RSS news feeds to create a digital poetry city. (Nesheim 2013)

Nelson envisages a dystopian networked urban environment—if it was a face it would probably be demented grinning clown—composed as a mesh of social discourses which, while meaningful or meaningless in themselves, are always poetic in the generative capacity of their emergent phenomena and the dynamic relations that flow between them. For Nelson, this is an existential concern as he considers how we, as individuals, navigate social media not only in search of information or even other people but, perhaps primarily, in search of ourselves,

recognizing (most likely unconsciously) that what we will find (if we are lucky) is our own absence as a moment of silence in that noise. For Nelson, *Remediating the Social* is less a psychogeographic topic than an opportunity to dissect a living patient's brain, the patient being our collective selves, as mediated and represented in the network and urban space.

CONCLUSION

It is important to note here that the development and curation of the *Remediating the Social* exhibition, as with the conference strand of the event, was undertaken through a process of peer review. This is not a novel approach to creating an exhibition. Indeed, there are many prior examples of this curatorial method being employed, whether in academic contexts or with non-academic examples, such as the annual SIGGRAPH exhibition, the International Symposia on Electronic Art, the selection of works for events associated with the Electronic Literature Organization, or the E-Poetry series of international conferences and exhibitions. These events have employed peer review for selecting creative works, in some instances, for over two decades, and it is the case that some of the reviewers who selected works for *Remediating the Social* have had prior experience with the selection process of SIGGRAPH, ISEA, ELO, and E-Poetry.

Nevertheless, such selection methods raise certain issues in the final outcome—the exhibition—which need to be addressed and managed. The resulting selection procedures might be criticized for lacking curatorial coherence of vision, for example, and it certainly does present challenges for the exhibition coordinators to establish clear thematic links between the works. We can only hope that, in developing our rationale for the event, we were able to establish a clear call for works that offered artists a framework for developing their proposals and that we employed a criteria for selection that ensured the works functioned to succinctly articulate the key concerns of the event and the ELMCIP research project.

We should take this opportunity to recognize the contribution of the peer reviewers to the exhibition. Although the author chaired and coordinated the exhibition, the process of selecting works, and, to some extent the development of its rationale, was a collective effort—perhaps offering us another reflexive example of the core theme of the event—and all those involved should be recognized. The international peer review committee consisted of Giselle Beiguelman (Sao Paulo), Simon Biggs (Edinburgh), Friedrich Block (Kassel), Laura Borràs Castan-

yer (Barcelona), Mark Daniels (Edinburgh), Yra van Dijk (Amsterdam), Jerome Fletcher (Falmouth), Raine Koskimaa (Jyväskylä), Talan Memmott (Bleckinge), Scott Rettberg (Bergen), and Janez Strehovec (Ljubljana). It was through their collective deliberations and process of review that the works were selected and the foundations of the exhibition established.

Once the selection was complete, the exhibition was coordinated by the exhibition committee, comprising Simon Biggs, Mark Daniels, Jerome Fletcher, and Scott Rettberg. Mark Daniels had particular responsibility for the presentation of the installations at Inspace (the University of Edinburgh) and Jerome Fletcher for the performance program at Edinburgh College of Art's Sculpture Court. The overall event was coordinated by Elizabeth Hodson. I would like to thank all of my collaborators for making *Remediating the Social* possible and, therefore, for their contributions (explicit or implicit) to this text.



Fig. 15 Textual Skylines installed at Inspace gallery.

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CREATIVITY AND INNOVATION IN PRACTICE

ELMCIP REPORT

ELECTRONIC LITERATURE PUBLISHING AND DISTRIBUTION IN EUROPE

MARKKU ESKELINEN, RAINE KOSKIMAA, GIOVANNA DI ROSARIO

INTRODUCTION

This preliminary survey of European electronic literature publishing and distribution was initially conducted by two scholars over the course of three months in 2010 and 2011, and later supplemented by bits and pieces until October 2012. The original project proposal is included at the end of this chapter. Given the vastness of the scope of the research and the variety of European languages that are not at our command, reservations concerning the width, depth, and representativeness apply, but only to a certain degree. There are essential similarities in the cultural and commercial status of electronic literature in the thirty European countries¹ this survey managed to cover. Therefore, while it is possible we may have missed some major players in the field, it is unlikely that their forms of networked publishing practices would constitute a major counter-example to our findings.

If this were a theoretical paper, we could spend several pages trying to define the basic terms used in the survey such as electronic literature, publication, distribution, and Europe. However, we adopted a more pragmatic approach.

Geographically, we did what we could in the given time. The three main borderline areas were Russia, the Ukraine, and some newly independent countries in the Balkans. Although we know that electronic literature exists in Russia (not to mention the fact that the first hypertext fiction published in Estonia was written in Russian), we couldn't establish reliable contacts within Russia and the Ukraine. Moreover, our contacts in the Balkans came up empty-handed when

¹ The division of labor was as follows: the Nordic (Denmark, Finland, Iceland, Norway, and Sweden) and the Baltic countries (Estonia, Latvia, and Lithuania), Germany, Austria, Poland, Hungary, Slovakia, the Czech Republic, Slovenia, Croatia, Serbia, Romania, and Swiss e-literature written in German were Eskelinen's responsibility; France, the United Kingdom, Ireland, the Benelux countries (Belgium, the Netherlands and Luxemburg), Spain, Portugal, Italy, Switzerland, Bulgaria, and Greece were di Rosario's responsibility.

asked about possible occurrences of electronic literature in Macedonia, Bosnia-Herzegovina, and Albania.

After the first month of research, it became evident that one crucial part of the original plan should be modified. Specifically, the exclusion of authors' self-publications would have led to two counterproductive results. First, several European countries would not be present in this survey at all, and, second, despite reviews and portals and occasional commercial publications, authors' self-publications dominate the scene of electronic literature in Europe. It also became clear that there are many different types and methods of *self-publication* so the category of self-publication is necessarily imprecise. Pragmatically, the ban was lifted, especially in regard to countries and regions where portals, reviews, and collections do not exist.

As a practical matter, we used the ELO's working definition of electronic literature, while remaining aware of its many problems. Therefore, in this survey, electronic literature refers to "works with important literary aspects that take advantage of the capabilities and contexts provided by the stand-alone or networked computer." To us this definition is helpful mostly because of what it excludes: both digitized print literature and print-like digital literature.²

Finally, there was a question of genres in electronic literature. For theoretical and practical (i.e. time- and resource-based) reasons we chose to exclude interactive fiction and MUDs (Multi-User Dungeons) from this survey, although (practical as we were) when we happened to come across information about the former, it was included in the report. After the emergence of ludology and computer game studies in the 2000s, both MUDs and interactive fiction could be researched both as games (and certainly as precursors of MMOGs [Massively Multiplayer Online Games], online virtual worlds, and adventure games) and as electronic literature, which slightly undermines the idea of treating them as mere or pure e-lit genres.

Having said this, it is also clear that the publication model of interactive fiction closely resembles the publication model of the kind of e-lit we chose to focus on: there is a small but active and internationally networked community accumulating and taking care of resources, and making old and new works avail-

² More precisely, using terms from Espen Aarseth's cybertext theory, we excluded from this survey any digital literature sharing the most common and typical media position, that of books: static, determinate, intransient, random access, impersonal perspective, no links, and interpretative user function (1997, 62–65).

able for free from The Interactive Fiction Database and several other sites. Some Infocom-era classics form the one major exception to this general rule. These communities (in Europe strong IF communities exist in Germany, Spain, France, Italy, and presumably the UK as well) set up regular competitions (centered, for example, around themes or time-based constraints) and try to attract new audiences. The international community also has a MUD environment that is not used primarily as a MUD but as an environment for real-time communication (Montfort 2010).

As the focus of this survey was on publishing and distribution, we excluded MUDs as well. To treat these programmable textual environments that are based on and used for real-time communication and collective improvisation as publications would have been a questionable move, pushing the conceptual envelope of publishing and distribution too far. In the case of MUDs, none of the traditional roles (publishers, editors, authors, and readers for starters) are applicable. Second, although MUDs in some cases serve as publishing environments, these publications are (for the most part) games and quests. Finally, the three-month time frame of this project would clearly have been insufficient to conduct a survey on European MUDs or even to separate them from the rest of the MUDs (the Mud Connector lists 1,154, and FindMud lists 624). Still, as communities, MUDs could in many ways serve as models for the best publishing and distribution practices of electronic literature (once we get that far in our research). Coincidentally, a publication in progress for the Cybertext Database titled "MUDs Revisited" (edited by Cynthia Haynes and Jan-Rune Holmevik) will most likely shed some light on this topic as well.

FINDINGS BY REGION AND COUNTRY (AN OVERVIEW) NORWAY

Each Nordic country except Iceland and Sweden has a major portal publishing electronic literature. These portals are also, to some degree, networked with each other and with the all-Nordic portal Elinor,³ which is far from being comprehensive when compared to local, national, and transnational portals.⁴ According to Hans Rustad's presentation at a seminar in Bergen in September 2010, at its

^{3 &}lt;www.elinor.nu>.

 $^{4\ \}mathrm{In}$ October 2012, Elinor ceased to exist anymore, but its contents will soon be found in the ELMCIP Knowledge Base.

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high point (i.e. when the percentage of dead links was close to zero, rather than approximately 50%, as it was in January 2011), Elinor contained sixty-four works of electronic literature, of which nineteen were Danish, twelve Norwegian, six Swedish, and twenty-seven Finnish. These figures are somewhat surprising, but they partly explain why the two major Nordic portals exist in Denmark and Finland. Strictly speaking, Elinor is the only portal in the Nordic countries that exclusively focuses on electronic literature; as we shall see, the scope of the two other major portals is different.

In the same presentation, Rustad estimated that all in all approximately one-hundred works of electronic literature have been written and published in Scandinavia. Rustad is not familiar with the Finnish scene, and seems to exclude MUDs and interactive fiction as well as early text generators from consideration, but his estimate could be correct in its own context.

Generally speaking, it is typical of the Nordic scene that many if not most authors of the most prominent works of electronic literature are also (locally) well-known authors of print literature. This means, first of all, that their works of electronic literature are situated within an oeuvre that is already recognized and positively evaluated as literature. In Norway, such crossover figures and their works include (according to Rustad):

- Tor Åge Bringvaerd's Faen (Damn 1998/1971)
- Marte Aas' Hva sier trærne? (What do the trees say? 2005–2006), a multimedia work that includes poems written by Marte Huke, who has published four well-received poetry books
- Monika Aasprong's Soldatmarkedet (Soldiers' Market 2003–2005), an author who is also an artist publishing traditional poetry and conceptual work in print
- Anne Bang Steinsvik's I mellom tiden (In between time 2002) with the poems written by Gøril Gabrielsen, a mainsteam author of two or three novels
- Morten Skogly, several of whose works are available through Elinor
- Ottar Ormstad, who has presented his digital and digitalized concrete poetry at several festivals and conferences during the last few years

In 2005, the NRK (Norwegian Public Broadcasting Company) and PNEK (Production Network for Electronic Art) collaborated on a project called *Digitale Fortellinger* (*Digital Narratives*). This competition was designed to reward the most interesting works with a prize of 10,000 Norwegian kroner and an online publication. The project gave birth to fifteen works of electronic literature, but the authors did not continue their careers in electronic literature. All the works that received awards are still available on PNEK's website.⁵

In addition to these works, Bjørn Magnhildøen's *Plaintext Performance* (2006) was published in the second volume of the Electronic Literature Collection in 2011. Collaborative projects of locative literature exist on the fringes of electronic literature, and one such work, *Flaneur–let the city speak*, was presented at the Electronic Literature Communities seminar in Bergen in September 2010 alongside another Norwegian e-lit work, Beathe C. Rønning's *Langweekend*.

DENMARK

In Denmark, the most important portal is Afsnit P, which defines its focus as follows: "Afsnit P is a Danish virtual exhibition space for visual poetry and intermedia art." It was established in 1998 by Katrin Wagner and Christian Yde Frostholm as a logical continuation of the book shop and art gallery of the same name. Afsnit P includes a gallery section presenting twenty-eight entries not only from Denmark, Sweden, Finland, and Norway, but also from the UK and France. These were added to the database between 1999 and 2008 and approximately one half of the entries are related to e-lit and its predecessors (especially visual and concrete poetry). All in all, Afsnit P is a transnational portal covering mainly the Nordic countries (except Iceland), and, in that orientation, it is somewhat similar to the Finnish portal Nokturno, although the latter focuses solely on literature and not on visual arts. Given the limited number of e-lit works included in the gallery, it is clear that Afsnit P presents only a small fraction of the electronic literature produced in Denmark and other Nordic countries.

^{5 &}lt; http://www.pnek.org/DigiFor/DIG2 Trearne.html>.

⁶ Managed by Anders Sundnes Lovlie; see < http://tekstopia.uio.no/flanor/en/>.

^{7 &}lt; http://ulyd.bek.no/beathe/>.

^{8 &}lt; http://www.afsnitp.dk>.

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In Denmark, probably the most well-known crossover authors are Morten Søndergaard (a poet who in 2000 remediated his poem "Kompas" into "Landskaber omkring digtet kompas"), Peter Adolphsen, and Christian Yde Frostholm. Moving back in time, Danish electronic literature claims to have its roots in the 1960s text generators of Klaus Høeck and Hans Jørgen Nielsen, although our sources could verify neither the availability of the generators nor their existence.

In the early 2000s, Danish Radio (DR) provided support for Sonja W. Thomsen's project *ingen else på vejen den dag* (No moose on the road that day 2001) and also had visual poetry as a theme on their website for some time. Thomsen's *ingen else* and her other interactive story projects (such as *love is in the air* and *Skakbraet*) are currently available online.

SWEDEN

Karl-Erik Tallmo published Sweden's first hypertext fiction *Iaktagarens' förmåga att ingripa* (*Participant's capability to interfere*) in 1992. It was preceded by his two other works of electronic literature, text generators *Hamnen* (*The Bay* 1988) and *Skriv rätt* (*Write correctly* 1990). Of these, only *Iaktagaren's förmåga* is still available (as files, obtainable from the author). The work includes features that were not typical of its genre and time of publication, such as semi-random associative links and text generation, but it was not well-received in the press; quotes on Tallmo's site from several reviews in major Swedish newspapers show the high degree of ignorance and unprofessionalism involved in the negative evaluations of the work. Tallmo still maintains his web presence (with links summarizing his activities from the late 1960s to the present day), but no new works of electronic literature have been listed since 1992.

Another important figure in Swedish electronic literature is Johannes Heldén, a visual artist and an author of the bilingual (Swedish/English) *Primärdirektivet/The Prime Directive* (2006) available at Afsnit P's gallery. Like Tallmo, Heldén is a well-known literary figure outside the e-lit scene, with books published by the respected Swedish publishing house Bonniers, which also published his interactive work *Väljarna* (*The Electrorate* 2008) at its poetry-related website. Heldén's latest digital/interactive publication *Entropi* (2010) is both a book and a

^{9 &}lt; http://www.enbyirusland.com/stories.html>.

digital text (on CD-ROM). Heldén, therefore, confirms the crossover hypothesis because he calls the three works mentioned above his digital/interactive books.

The internationally well-known tradition of Swedish concrete poetry is also alive and continues in digital interpretations and remediations at Afsnit P.¹⁰ Swedish interactive fiction activity is centered, or at least used to center, around the Lysator site.¹¹

Possible publishing venues for Swedish electronic literature include OEI,¹² a journal for innovative prose and poetry (digital literature and theory was the theme in issue 22/23 in 2005), and Mejan Labs.¹³ According to Maria Engberg, Mejan Labs functions as an extension of the Royal University College of Fine Arts and aims to establish a platform that combines an innovative exhibition program with education, research, and experimentation. Occasionally, they include multimedia/digital/performance art that includes literature or literary aspects.

FINLAND

In Finland, the main publication forum for electronic poetry is the portal Nokturno (edited by Marko Niemi),¹⁴ which has been in operation since 2005. At the present time, it seems to be the liveliest of the Nordic portals as well, usually updated several times a month. As of October 2012, Nokturno includes some 230 entries (some of these contain more than one work), but, of these, only one fifth were what we call electronic literature. The main focus of Nokturno is experimental poetry, be it concrete, visual, video, sound, kinetic, generative, or interactive.

Nokturno has two additional characteristics that are of interest to this survey. First, its scope is not limited to Finland, the Nordic countries, or even Europe. It includes works from thirty one countries in twelve languages, although the scope is considerably narrower when it comes to electronic literature (eleven countries and seven languages as of January 2011). The primary focus of Nokturno's international networking is the English-speaking world: USA, Canada, the UK, Australia, and New Zealand. Secondly, Nokturno includes several e-literary

^{10 &}lt; http://www.afsnitp.dk/galleri/konkretpoesi/>.

^{11 &}lt; http://www.lysator.liu.se/sak/>.

^{12 &}lt; http://www.oei.nu>.

^{13 &}lt; http://www.mejanlabs.se/index2_en.asp>.

^{14 &}lt; http://www.nokturno.org >.

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works both in their original versions and in Finnish translation. These features are comparatively unusual within the European e-literature scene: usually the geographical scope of portals are limited to one, two, or three countries; they contain literature written in only one or two natural languages; and, except in Poland and Spain, portals do not publish translations.

Beyond Nokturno and its exclusive focus on poetry, Finnish electronic literature consists of authors' self-publications of hypertext fiction. These can be classified in two different groups: pedagogical and educational ones written in Hypercard and later in HTML from the early 1990s to the early 2000s; and the ones written by professional authors (Markku Eskelinen, Riikka Pelo) from the mid-1990s to the early 2000s. Most of these works are also available through Elinor. Also found in Finland are locally well-known print authors who have been active in the realm of electronic literature. Among them are Arto Kytöhonka (d. 1992), Leevi Lehto (famous for his Google Poem Generator), Cia Rinne (a Finnish-Swedish author who usually writes her electronic literature in English), Marko Niemi (who recently expanded his repertoire from electronic to print poetry), and Markku Eskelinen.

Journals, competitions, and collections of electronic literature do not exist in Finland, and it is likely that the next small wave of electronic literature in Finland (as well as in other Nordic countries) will be or already is taking place in social media. Marko Niemi's *Stud Poetry* (2006), originally written in English, is included in the first volume of The *Electronic Literature Collection* (2006).

In 2004, Elina Saloranta, according to her own description "a visual artist interested in words," wrote and directed a trilingual cine-roman on video based on Marguerite Duras' texts. Entitled *Le lit des amants (The Lover's Bed/Rakastavaisten vuode)*, it is a combination of DVD and book, published by Taide (the most prestigious publisher of books on visual arts in Finland). The work was exhibited in several art galleries both in Finland and internationally.

ICELAND

Nokturno also includes *Goggi*, a Google poem from Iceland, written by Jón Örn Loðmfjörð, both in English and in a Finnish translation. Beyond that, our sources remained mute, although it is likely that self-published electronic literature exists in Iceland as well.

THE BALTIC REGION (ESTONIA, LATVIA, LITHUANIA)

In the Baltic region, the liveliest scene is in Estonia, although the overall picture is similar in all three countries: individual authors with their websites and blogs can be found, but there are not many of these, and only a few authors are still active.

The first hypertext novel in Estonia, *Roman*, was self-published by Roman Leibov from 1995 to 1997. Because *Roman* is written in Russian, Hasso Krull's hypertext poem *Trepp* (*The Stairs* 1996; its Finnish translation is available at Nokturno) is the first one of its kind written in Estonian. Other Estonian hypertextual works from the 1990s include:

- Nelli Rothvee's *Net Poetry* (1997), which forms a trilogy with her *altavista words* and *chat poetry* (also from 1997), but only the first and third part of the trilogy are still accessible on the Internet
- Tambett Tamm's The Weather Station Never Lies (1999)
- Lemmit Kaplinski and Jaak Tomberg's *Prepare* (1999)

Paul-Eerik Rummo, a well-known Estonian poet and politician, is the most important crossover figure in Estonian electronic literature. His only e-lit work is called *The Basho's Expansion* (2000). It is also worth noting that the electronic literary scene in Estonia is trilingual, as the works of Tamm and Rothvee are written in English.

The situation in Latvia and Lithuania was much harder to research, although the logic there is pretty much the same as in Estonia. The few publications of electronic literature extant in Latvia and Lithuania are authors' self-publications. Nokturno includes two visual poems from Latvia, Jelana Glazova's *Re-start* and *Meaning*.

ELECTRONIC LITERATURE WRITTEN IN GERMAN (GERMANY, AUSTRIA, AND SWITZERLAND)¹⁵

Germany, Austria, and the German-speaking Switzerland constitute one of the three centers of e-lit in Europe. Here we have: the first pioneers of the whole field, such as Theo Lutz and Max Bense, starting their e-literary careers in the

¹⁵ For a better-informed and truly magisterial perspective on German electronic literature and electronic literature publishing, see Beat Suter 2012.

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late 1950s; close encounters between electronic literature and the Ars Electronica festival resulting in the first German hypertext fiction in 1989 and the series of p0es1s exhibitions and conferences from the early 1990s; substantial literary output in several, if not all, electronic literature genres; short-lived attempts at commercial publications (Editions Cyberfiction); well-organized and extensive portals (such as netzliterarur.de and cyberfiction.ch); and several short-lived literary prizes dedicated to electronic literature.

Interestingly, the German speaking region of Europe seems to be more open to the two other European e-lit centers—France and the UK—than they are towards the German region or each other. Its networked orientation is towards Anglo-American e-lit and e-lit theory, but until lately this has been a one-sided effort, as the scene in the UK has favored its transatlantic contacts while also establishing some connections with the French e-lit scene. The French scene has opened up to the US scene, and the effects of this international networking are still visible in the publications of *alire* and the presentations at the six E-Poetry conferences.

ELECTRONIC LITERATURE COMPETITIONS AND PRIZES

In a recent paper on the post-processing of electronic literature in Germany, Patricia Tomaszek (2011) analyzed the function and the consequences of electronic or net literature competitions in Germany. The most important of these was the Pegasus prize (1996–1998), sponsored by Die Zeit and IBM, and while subsequently there have been several short-lived prizes and competitions, the Pegasus prize sealed the fate of German net literature for a long period of time. As Tomaszek summarizes:

At an early stage in the 90s, German net literature became a subject of a controversial debate between artists, theorists, and literary critics. A strong community evolved in which net literature was embedded in an infrastructure that made net literature publicly visible. Everything started with a call for a competition whose jury hardly defined what it was looking for; consequently, a critical study on terminologies and definitions unfolded. [...] The advents of the German Pegasus-Award that launched in 1996 were of crucial importance for the community and its emerging field. [...] Today, new competitions in Germany commence occasionally but hardly receive an echo in the public. Slowly, German net literature becomes invisible. (Tomaszek 2011, 1)

As examples, some of the more recent competitions that have taken place in Germany are: Ettlinger Internet-Literaturwettbewerb (Internet-Literature com-

petition of the city of Ettlingen, established in 1999 by Oliver Gassner; discontinued); Net Literature Prize, initiated by arte-them and sponsored by Siemens in 2000;¹⁶ Literatur.digital, initiated by the German paperback publisher Deutscher Taschenbuch Verlag (DTV) and T-Online, running from 2001 to 2003; and The Literature House Stuttgart's first Bachelors' Prize for Net Literature,¹⁷ announced in 2005.

In addition to these competitions, Marianne von Willemer Women's Prize for Digital Arts¹⁸ has been awarded biannually since 2000 (and annually since 2004) in Linz, Austria. It is organized by the Office of Women's Affairs of the City of Linz in cooperation with the Ars Electronica Center and supported by the Austrian Broadcasting Corporation. The goal of the prize is to "encourage and acknowledge women net artists" (writing in German and living in Austria). In the early 2000s, several works of electronic literature were either awarded this prize or honorably mentioned.

ART VENUES

In 1992, André Vallias and Friedrich W. Block curated the first international exhibition of digital poetry, "p0es1s," in Annaberg-Buchholz. For some time this looked like a one-time event, but in the 2000s five subsequent p0es1s exhibitions and symposia were organized in Kassel (2000), Erfurt (2001), Berlin (2004 and 2009), and Rio de Janeiro (2007). The bilingual p0es1s website contains information from all six symposiums and exhibitions, including downloadable conference catalogs and links to artworks and presentations.

The introduction to the Kassel p0es1s symposium explains:

p0es1s is a platform to explore the characteristics and possibilities of digital texts. p0es1s links two independent projects: the symposia on "the poetics of digital texts" and the exhibition of international digital poetry.

¹⁶ More info at http://archives.arte.tv/them@dtext/wettbewerb/lit wett lit wett fs.html>.

^{17 &}lt; http://www.junggesellenpreis.de/index engl.html>.

^{18 &}lt; http://www.linz.at/frauen/43733.asp>.

^{19 &}lt; http://www.p0es1s.net/p0es1e.htm>.

^{20 &}lt; < http://www.p0es1s.net/>.

The two p0es1s events in Berlin were presented by literaturWERKstatt Berlin in cooperation with the Brueckner Kuehner Foundation, and the earlier event was supported by Kunstbibliotek der Staatlichen Museen in Berlin (Art Library of the Berlin State Museums) and funded by Kulturstiftung des Bundes (Federal Cultural Foundation, Germany).

As an international event, p0es1s is by no means limited to German digital poetry. As an example of its scope, the theme of the p0es1s 2009 was sprachspielen (language games), and the featured artists were Johannes Auer, René Bauer, Simon Biggs, Friedrich Block, Anton Bruhin, Florian Cramer, Klaus Peter Dencker, Stefan Freier, Heinz Gappmayr, Eugen Gomringer, Daniel Howe, Steffi Jüngling, Eduardo Kac, Aya Natalia Karpinska, Stephan Krass, Franz Mon, Yoko Ono, Christine Clara Oppel, Oskar Pastior, Jörg Piringer, Julius Popp, Wolfram Spyra, Christian Steinbacher, Beat Suter, Timm Ulrichs, versfabrik, Peter Vogel, and Uli Winters.

Among other events within the museum circuit was the web-project "Liter@tur," initiated by the Museum für Literatur am Oberrhein (Museum of Literature in Oberrhein) in 2000.²¹

The Literaturhaus Stuttgart (House of Literature Stuttgart) has provided a venue to perform, present, and talk about electronic literature (along with non-digital literary practices) on three separate occasions in 2005, 2008, and 2009.²² Similarly, the literaturWERKstatt Berlin offered a venue for electronic literature during its "poesiefestival" (poetry festival) in 2008, 2009, and 2010.

PORTALS AND PUBLISHERS

There are occasional publications on CD, such as the adaptation of Andreas Okopen-ko's novel *Lexikonroman—einer sentimentalen Reise zum Exporteutreffen in Druden* (Verlag Mediendesign OEG 1998) and *Hyperfiction, ein hyperliterarisches Lesebuch*, edited by Beat Suter and Michael Böhler (book and CD, strömfeld verlag, Basel, 1999), a combination of eleven theoretical essays and twenty-four hyperfiction works. Other than this, the only publisher operating in the commercial market is update Verlag and its publication series Editions Cyberfiction (the publications can still be purchased from the company's online bookshop).

²¹ More info and many broken links can be found at < http://www.netlit.de/start/>.

²² See < http://www.literatur-und-strom.de/3/>.

Four e-lit works on CD were published in the series between 2000 and 2004: *Hilfe* by Susanne Berkenheger (the winner of the Ettlinger prize in 1999); *Kill the Poem* by Johannes Auer and Reinhard Döhl; *tExtra.Tour* by Oliver Gassner; and *spätwinterhitze* by Frank Klötgen. Editions Cyberfiction was based in Zürich, Switzerland and managed by Beat Suter, who has been active in writing, researching, promoting, and archiving electronic literature. Suter's portal²³ is the most important e-lit portal in Switzerland, but its scope is wider and covers electronic literature written in German.

In Germany, the most important and impressive net literature portal is neztliteratur.net,²⁴ edited by Johannes Auer, Christine Heibach, and Beat Suter. It is a well-organized archive of German net literature and its predecessors from the very beginning in the late 1950s (Theo Lutz, Max Bense, and the Stuttgarter Gruppe). It also contains a collection of important theoretical papers on digital literature written by mainly German scholars and a fairly large section on net art. It also links itself to other portals, projects, exhibitions, and blogs, among them a huge online database on electronic literature maintained by the Université de Québec in Montreal.²⁵ Netzliteratur.net is a horn of plenty of German networked and programmable literature, and it is beyond the expertise and resources of the authors of this survey to speculate on what—if anything—of importance the portal potentially excludes, ignores, or misrepresents.

Netzliteratur contains a section titled "projects," collecting of the most important works of net literature and hyperfiction written in German. The authors featured in it are Johannes Auer, Susanne Berkenheger, Florian Cramer, Reinhard Döhl, Sylvia Egger, and Martina Kieninger. The project section is also interesting in terms of publishing as it confirms the significant role of local and national radio broadcasting companies as vehicles for promoting, publishing, distributing, and funding electronic literature.

German electronic literature collections do not exist (with the exception of *Hyperfiction, ein hyperliterarisch lesebuch*, mentioned above), but six German works are included in ELO's two collections. The first volume included Reiner Strasser's two collaborations with Alan Sondheim (*Tao* 2004 and *Dawn* 2005)

^{23 &}lt; http://www.cyberfiction.ch/>.

^{24 &}lt; http://www.netzliteratur.net >.

^{25 &}lt; http://nt2.uqam.ca/search/nt2 repertoire>.

and one with M. D. Coverley (*ii-in the white darkness* 2004). Christoph Benda's *Senghor on the rocks* (2008), Susanne Berkenheger's *The Bubble Bath* (2005), and Jörg Piringer's *soundpoems* (2002) were published in the second volume.

POLAND

Poland definitely has the most active and versatile tradition in Eastern European electronic literature. This became clear in Mariusz Pisarski's exemplary answer to our questions. According to Pisarski, there are three main portals of electronic literature in Poland.

The first, Techsty-literature and new media (Techsty-literatura i nowe media),²⁶ includes an "electronic literature overview: news, forum and over 300 interconnected pages of hypertext history and theory compendium, repository of links to authors, institutions and works of digital literature." The portal promotes young and not-yet-established authors by helping them produce, publish, and host their first digital works (such as works by Marek Oktawian Bulanowski, Nescitus, and Witold Mazur).

The second portal is Korporacja Ha!art.²⁷ According to Pisarski, this portal has a strong emphasis on innovative trends in literary culture, among them electronic literature. It features weekly pieces on new media art and a monthly poetry competition with a separate category for "multimedia poetry." Serial web literary comic art is also regularly featured. Ha!art is the first Polish publisher of hypertext literature—including the hypertext *Koniec swiata według Emeryka* by Radosław Nowakowski (2004) and a forthcoming translation of *afternoon*, *a story* by Michael Joyce (2011).

The third portal Perfokarta²⁸ is described by Pisarski as follows:

A website of Perfokarta, group of poets, musicians and performers involved in experiments with generative possibilities of digital text, music, graphics and installations. The effects of the experiments are promoted under a term "cyberpoetry." The website is an online publishing platform for Perfokarta group. Generative, digital objects and manifests of "cyberpoetry," as well as videos from live performances of the members of the group can be accessed online there.

^{26 &}lt; < http://techsty.art.pl >.

^{27 &}lt; < http://ha.art.pl >.

^{28 &}lt; http://perfokarta.net >.

One e-lit journal also exists in Poland, *Techsty* magazine,²⁹ a periodical part of "Techsty–literature and new media portal." It publishes electronic literature works by Polish authors as well as translated fictions (works by Mark Amerika, Judy Malloy, Stuart Moulthrop, and Stefan Maskiewicz). Pisarski explains that it is the following:

the only Polish journal concentrated exclusively on hypertext theory, cybertext perspective, and ludological approach to digital arts and literature. Apart from presenting articles by its authors (Emilia Branny, Dorota Sikora, Andrzej Pająk), Techsty magazine features translations of seminal works of e-literature theory. It also features an e-PhD series of online, hypertext versions of PhD dissertations on cybertext literature (introduced by Sebastian Strzelecki's *Interface Effects*). Six issues have been published in the series since 2003.

E-lit collections do not exist in Poland, but there is at least one e-lit competition, Intertetowy Turniej Jednego Wiersza (One Poem Internet Competition),³⁰ a monthly competition held by Korporacja Ha!art literary portal. As of 2010, eight works of new media poetry have received awards (by Katarzyna Giełżyńska, Paulina Danecka, Kamil Zając, Katarzyna Janota, Aneta Kamińska, Miroslaw Marcol, Jonas Gruska, and Katarzyna Gielzynska).

Finally, electronic literature is also alive and well in the Polish art world. Pisarski gives three main examples by Paweł Kozioł, Józef Żuk Piwkowski, and Tomasz Wilmański. He describes them as follows:

Bluzgator Bis by Paweł Kozioł, a text generator based on the web distributed Bluzgator application, popular among teenagers, which functions as a generator of random swear words. Kozioł uses the mechanism of the prototype but changes its content. The database of words, phrases, and sentences in Bis version comes from Textylia bis—an anthology of young literature, from the Polish weekly "Polityka" and from the "Ha!art" magazine. Users of Bluzgator Bis can choose the recipient of the text (woman, man, or group of people), its style (proper, full sentences or Internet slang), the size of the output (from one to 200 sentences), and its visual appearance. Bluzgator Bis is available as an executive file (.exe) from "Techsty" magazine.³¹

^{29 &}lt; http://techsty.art.pl/magazyn.htm>.

^{30 &}lt; http://www.ha.art.pl/prezentacje/29-projekty/834>.

^{31 &}lt; http://www.techsty.art.pl/magazyn3/Bluzgator%20Bis.zip>.

Pisarski describes the second example as follows:

The Book Of All Words by Józef Żuk Piwkowski (first version 1975, on Mera 300 office computer, in collaboration with Mieczysław Gryglik). Piwkowski's work is an algorithm that generates (and prints) pages of an infinite book. The inexhaustible book is a collection of all possible combinations of twenty-six letters of Latin alphabet. User can only see the on-demand page that is a result of her/his own word query. The Book of All Words has been presented in galleries (Art & Communication 1987). Piwkowski's work has also its online version.³²

As a final example, Pisarski described:

Meditation no 4, by Tomasz Wilmański, an animated alphabet poem in Adobe Flash, shown as a one-off installation in a gallery space where it was projected on a screen (AT Gallery, Poznań 2004). As a tribute to Kenneth Williams and his series of concrete poems, *Meditation no 4* relied not only on its visual but also aural aspect. The sound, embedded in a Flash file, played a crucial role.³³

HUNGARY, THE CZECH REPUBLIC, SLOVAKIA, AND ROMANIA

The first Hungarian hypertext novel, *GOLEM*, written by Peter Farkas, dates from the late 1990s (1997–2005 according to its website) and is still available online.³⁴ There is also an early dictionary-novel written by many Hungarian intellectuals, but it was abandoned a long time ago. It is a part of the site of the biggest Hungarian online dictionary project.³⁵

In addition to these two works, the Magyar Nemzet Online, an electronic edition of one of the leading newspapers in Hungary, recently sponsored a collaborative novel project. Finally, there is a site for fostering collaborative novel writing and publishing the results in a mysterious business system.³⁶ In addition to Hungarian works published in Hungary or Germany (as was the case with *GOLEM*), the Nokturno portal presents three flash poems written by Már-

^{32 &}lt; http://2b.art.pl/ksw/ksw.php?>.

³³ Online version (without sound) is available at $<\frac{http://www.techsty.art.pl/magazyn/magazyn5/start.html}>$.

³⁴ at <<u>http://www.interment.de/golem/</u>>.

 $^{35 &}lt; \underline{http://www.sztaki.hu/providers/nightwatch/interakt/szotarnaplo}/>.$

^{36 &}lt; http://regenytar.hu/index.php>.

ton Koppány and Juha-Pekka Kervinen (a Finnish e-poetry author), and Tom Konyves' classic videopoem *Sympathies of War* (1978) with its postscript, *Mummypoem*. Tibor Papp (working in France and the French language since 1961) is originally from Hungary and according to Philippe Bootz (2010) he is the only digital poet in Hungary.

In Slovakia, Zuzana Husarova has collaborated with another artist to create and publish an e-lit piece called *Pulz* (2009)³⁷ that she describes as "poetry combined with generated music and also open for reader's creativity." It is in Slovak but will be translated into English in the future. Another work by Husárová and Lubomir Panak, 4079, was recently published in the ELO directory.³⁸

In addition to a generated text in Morse called *Vetrni hodiny* (*Wind Clock*), there are at least two hypertext fictions written by a Czech author, Marketa Bankova. One of them, *New York City Map* (2000),³⁹ is written in English and the other, *Mesto*, also exists in English translation (*The City*).⁴⁰

Our four contacts in the Czech Republic and Slovakia could not come up with any other Czech examples of electronic literature. Given the Czech traditions in experimental literature in the twentieth century this non-existence is probably a testament to the material, temporal, and linguistic limitations of this survey; i.e. such literature most probably does exist, but we just do not know where to find it.

In Romania, the non-existence of electronic literature seems to be a well verified fact.

SLOVENIA

In the timeline for Slovenian literature provided by Jaka Zeleznikar (2011), the first wave of electronic literature that emerged in Slovenian consisted of text adventures written for the ZX Spectrum 48K computer. These included the following five works:⁴¹

^{37 &}lt; http://projekty.delezu.net/electronicka-literatura/pulz/>.

^{38 &}lt; http://directory.eliterature.org/node/1305>.

^{39 &}lt; http://www.nycmap.com/index.html >.

^{40 &}lt; http://www.city.je/>.

⁴¹ The URLs contain detailed information as well as versions of the games that can be run in an appropriate emulator.

ELMCIP REPORT

- Žiga Turk, Matevž Kmet: Kontrabant and Kontrabant 2 (Smuggler 1984)⁴²
- Žiga Turk, Matevž Kmet, Barbara Železnik, Igor Bizjak, Samo Fosnarič: *Eurorun* (1985)⁴³
- Aleš Jaklič, Matej Gašperič, Aleš B. Ivanko: Smrkci (Smurfs 1985)⁴⁴
- Žiga Turk, Barbara Železnik, Igor Bizjak: Bajke (Tales, 1986), based on the book by Janez Trdina (1830–1905) entitled Bajke in povesti o Gorjancih (Tales from the Gorjanci Hills, first published in 1882).

In the same paper, Zeleznikar (2011, 10–11) also discussed works by five Slovenian artists and authors that combine electronic literature and net art.

The first was Marko Košnik, *Brzinski spomeniki* (1994, live radio broadcast on Radio Študent, thirty three minutes). 46

The essay that was read and improvised live (with collaborators) includes elaborate prior text manipulation using printing, fax, and OCR software that distorted the text through a repetitive process. The live manipulation included the manipulation of the author's reading overlaid by a loop of analogue tapes by Borut Savski and the re-mix by Miran Kajin. The manipulated source essay and audio archive of the broadcast is available.

Zeleznikar then described work by Marko Košnik:

operabilVienna (2005, multimedia performance)⁴⁷ and the missing engine of laputa (2006, performance lecture).⁴⁸ A video archive of the performance with the text, reading, kinetic text projection, and video manipulation (in English).

The third work Zeleznikar described was by Vuk Cosic:

The majority of his work is influenced by medieval textual visuals of the

 $[\]label{eq:control_section} 42 < & \text{http://www.worldofspectrum.org/infoseekid.cgi?id=0006546} > \text{and} < & \text{http://www.worldofspectrum.org/infoseekid.cgi?id=0021603} >. \\ \end{aligned}$

^{43 &}lt; http://www.worldofspectrum.org/infoseekid.cgi?id=0021828>.

^{44 &}lt; http://www.worldofspectrum.org/infoseekid.cgi?id=0006987>.

^{45 &}lt; http://www.worldofspectrum.org/infoseekid.cgi?id=0005987>.

^{46 &}lt; http://web.mac.com/marchegon/radioArchive/brzinskiSpomeniki.html>.

^{47 &}lt;a href="http://web.mac.com/marchegon/movies/operabilVienna.html">http://web.mac.com/marchegon/movies/operabilVienna.html>.

^{48 &}lt; http://web.mac.com/marchegon/movies/laputaEngine.html>.

Arabic, Jewish, and western tradition, literary avant-gardes, and related traditions. His entire ASCII art corpus (1998–99, continued to present, but less intensively) might be considered as electronic literature. His work *Nacija-kultura* (*nation-culture* 2000) is also notable. This project (in a brief outline) consisted of a projection of real time search queries from the main Slovene search engine (at the time) formed in the shape of a sonnet with rich and multilayered references to the Slovene national poet and icon France Prešern and related questions of national identity seen through the crash of a myth of the nation (represented by Prešern) and the nations on-line search reality.

The fourth work described by Zelenikar was Teo Spiller:

In $SP_/_M$ s.o.n.n.e.t (2004)⁵⁰ the author combines texts from spam e-mail messages into personalized sonnet-like poems. In 2010, he developed a new approach with the News Sonnet that combines different news sources producing unexpected semantic/news collocations.

Finally, Zeleznikar described work by Igor Štromajer:

In accordance with his constant exploration of intimacy and emotions *gsm.art* (1999)⁵¹ explores the SMS/online communication with a distinct combination of visual and text elements in relation to technologically mediated communication. In *wap.sonnet–microbe.4/wap art* (2000),⁵² he uses code work type of poetry intended for mobile phones (wap).

In describing his own work, Železnikar wrote:

The author's electronic literature (1997–present)⁵³ is predominantly focused on computational/e-poetry through which he explores a wide variety of approaches from interactive, participatory, generative, and kinetic to program based poetic web interventions. His preferred media are web pages and Firefox add-ons. Recently he has focused on exploring the expressive possibilities of Twitter (and its API).⁵⁴

^{49 &}lt; http://www.ljudmila.org/~vuk/">..

^{50 &}lt; http://www.s-p-i-l-l-e-r.com/spamsonnets/>, in 2008/09 extended with the VRML and slideshow components in Spam Sonnets <math display="inline">2

^{51 &}lt; http://www.intima.org/gsm">..

^{52 &}lt; http://www.intima.org/sonnet.html>.

^{53 &}lt; http://www.jaka.org/projects.php?tag=e-poetry>.

⁵⁴ With works such as http://twitter.com/jakaorg/status/1411842446, http://twitter.com/jakaorg/status/1495974796, and http://twitter.com/jakaorg/status/1495974796, and http://www.jaka.org/2009/sara/ (all 2009).

CROATIA AND SERBIA

In Croatia, Bulaja naklada, a publisher of electronic books in education and culture, published their most important project, *Croatian Tales of Long Ago I–II* in 2002 and 2006 (both volumes were edited by Helana Bulaja). It was an international and collaborative project of eight teams of animators, illustrators, musicians, and programmers, based on a classic Croatian fairy tale written in 1916 by Ivana Brlic Mažuranic. According to the publisher, the project was "a new step towards exploring the relation between digital media and traditional, classic literature." The two volumes were published on CD-ROMs containing twelve animated interactive stories, cartoons, and games. These works are also on sale at The Hypertextual Exchange accompanied by two reviews of them.

One site⁵⁷ promotes digitized works of Croatian authors, but the only work of electronic literature is Krešimir Pintaric's *Commedia*, an electronic poetry book.⁵⁸ Art Gallery Miroslav Kraljevic,⁵⁹ although "dedicated to research, exhibition, documentation, and dissemination of information about contemporary visual art practice and its extended field," has exhibited several projects that combine visual arts and literature such as Kata Mijatovic's *Mreža snova* (*The Dream Net*) and Andreja Kuluncic's *Closed Reality: Embryo* and *On State of the Nation*. All these projects are available in English.

Libra Libera, "literary magazine for literature and Other" (offline in October 2012) launched several projects of interactive writing in 2000 and 2001 while presenting theoretically the concept of hypertext. Some of the resulting works were Mixal, Wender, and I, the first hypertextual collaborative writing produced by five young Croatian authors; Introduction to positive geography in which a hypertextual map of Southeastern Europe is connected with travel literature; OHTXT, a tool for producing hypertextual works; and Hypertext for mass, a project relating to the 150 years of history of the Communist Manifesto. Unfortunately, these projects are no longer accessible online; only one screen of the first work

^{55 &}lt; http://www.bulaja.com/onama_eng.htm>

⁵⁶ For more information, see < http://www.bulaja.com/price/price_eng.htm>.

^{57 &}lt; http://www.elektronickeknjige.com/dpkm/">.

^{58 &}lt; http://www.kresimirpintaric.com/commedia/home_flash/commedia_flash.php>.

^{59 &}lt; < http://www.g-mk.hr/>.

^{60 &}lt; http://www.libralibera.hr >.

is online.⁶¹ The same site also contains Katarina Vukovic's *Panorama of Croatian hypertextual literary works* (2000) and an overview of Croatian media art (in English).⁶²

The only piece of electronic literature written in Serbian we could find was a website of possibly dubious literary value called Bundolo.⁶³ At the other end of the scale, Milorad Pavić's short hypertext *Damascene*, a tale for computers and compasses translated from the Serbian by Sheila Sofrenovic, is available online.⁶⁴ A CD-rom version of the *Dictionary of the Khazars* has been illustrated with Katarina Janjic's hyper-paintings.

BULGARIA

According to Daniele Giampà, Bulgaria does not appear to have developed works of digital literature. However, since 2009, a digital art festival has been organized each year in Sofia: the Digital Art Festival.⁶⁵ The third edition will be held in September 2011. The festival has a website where works and performances presented during the festival are archived. The festival focuses on digital art (primarily films, including a section devoted to film, and acoustic music). In past editions, works that can be considered digital literature (because of the predominant use of words) have been shown, such as *Algorithmic Search for Love* (2010), an interactive installation by Julian Palacz, and ...*hihi*... (2010) by Evgenia Sarbeva. This work is described as follows:

a conversation with a machine—a computer. The vocabulary of the computer is limited to all those parasite sentences, expressions, words which we use so often because of the non-stop text communication between people nowadays. The aim of the project is not to judge, but to make us think how often we use words and symbols mechanically without really meaning them or charge them with real emotions.

^{61 &}lt; http://www.culturenet.hr/default.aspx?id=23036>.

^{62 &}lt; http://www.culturenet.hr/default.aspx?id=23304>.

^{63 &}lt; http://www.bundolo.org/templates/home.php >.

^{64 &}lt; http://www.ezone.org/damaskin/>.

^{65 &}lt; http://2010.da-fest.bg/en/site/workshops/category-go/3>.

GREECE

Electronic literature does not appear to be well known in Greece. However, there has been growing interest in the interaction of literature and cyberspace. In 2004, the publishing house Metaichmio published a short story collection touching fleetingly on the influence of digital technologies on literature.

There are Greek writers who have published novels with an accompanying website and supplementary material online. According to Theodoros Chiotis, it is quite interesting to note that despite the lack of a significant number of electronic literature texts in Greek, there is a growing number of critical texts on the subject by Greek scholars.

ITALY

Although Italy has a long tradition of experimentation in literature, digital literature has not found its place yet in the country. For instance, the artist Gianni Toti coined the word "poetronica" in order to highlight both components of that new fusion of the arts: the poetic element and the electronic aspect, and Nanni Balestrini created one of the first generative poems *Tape Mark* (1961).

One of the most significant ongoing events in experimenting with art and informatics in the recent past has been the TEAnO (Telematica, Elettronica, Analisi nell'Opificio). TEAnO is the computerized part of the OpLePo (OPificio di LEtteratura POtenziale)66 which was created in 1990 as an Italian version of the more famous OuLiPo. TEAnO was founded in 1991, a year after the OpLePo. It is thought as an Italian version of the French ALAMO group. TEAnO is interested in the relationship between what they call "artistic goods" and the computer. According to TEAnO's members, "TEAnO has been involved [sic] in the generation of 'artistic goods' in aesthetic domains such as literature, music, theatre, and painting." In 1998, the Opificio di Elaborazione Potenziare (OPELPO) was created. However, neither TEAnO nor OPELPO are devoted to electronic literature. Their experimentations included literature and computer, but also music and computer, food and computer, and so on.

During the 90s, Italy started to be interested in hypertext. The first Italian hypertext was written by Lorenzo Miglioli in 1993. *Ra-Dio* was presented at

^{66 &}lt; http://oplepo.it/>.

a conference in Reggio Emilia organized by Gruppo 63 (an Italian avant-garde movement that had as members several famous authors such as Nanni Balestrini, Edoardo Sanguinetti, and Umberto Eco). *Ra-Dio* was published by Elettro Libri along with the translation of Michael Joyce's *afternoon*, *a story*. Unfortunately, the Elettro Libri Press no longer exists, so it is almost impossible to find these publications anymore.

Other hypertexts were produced online in the 90s, such as *Red Brick*, a hypertext on and about the city of Bologna. *Nella rete del giovane Holden* (*On Young Holden's Net* 1996) was a writing project of the Municipality of Modena and the art review "Kult Underground" that also involved high school students. The result was a patchwork of poems, short fictions, and essays that was published on the "Kult Underground" website (now accessible via Internet archive).⁶⁷ Other similar projects involving schools were organized particularly in the North of Italy (like *Grafoman* 1997, still accessible online⁶⁸), but the majority of them are not online anymore.

The group of young writers Ipertesto Poetico Quadridimensionale published *Machina Amniotica* (*Amniotic Machine*) online, openly allowing the readers to manipulate the hyper-poem.

However, besides these experiments, Italy has not appeared to be so interested in electronic literature. This could be explained by the long tradition of a high literature that both schools and universities have emphasized coupled with the sense that electronic literature is not high literature.

Very recently, "Quintadicopertina" (2010), a new publishing house only for digital formats, has published three new hypertexts in its series "polistorie" (multiple/many stories): Fabrizio Verrandi's *Chi ha ucciso David Crane?* (*Who killed David Crane?*), Antonio Koch's *Verrà H.P. e avrà i tuoi occhi* (*H.P. will come and have your eyes*), and Enrico Colombini's *Locusta Temporis* (*The Age of Locust*).

Normally in Italy, dissemination and publication of electronic literature depend on its authors and their personal websites. However, in recent years there has been a wider interest in the subject.

^{67 &}lt; http://replay.waybackmachine.org/20051104204103/ http://www.kultunderground.org/holden/>.

^{68 &}lt; http://kidslink.bo.cnr.it/irrsaeer/calamo/io1.html>.

"Trovarsi in rete" ("let's meet on the web")⁶⁹ was the first community website devoted to electronic literature in Italy. "Trovarsi in rete" originated in a workshop focusing on writing and new media that also involved high schools.

The project "scrittura mutante" ("mutant writing") started in 2000 at the Library of Settimo Torinese (Torino), and it was presented at "Il salone internazionale del libro di Torino" in the same year. Besides the Italian digital works archived on the website, there is another section called "mappa" ("map") where one can find many links to other e-lit works. This section is divided according to different *forms* of electronic literature: "New Media Poetry," "Hypertexts," "Interactive Fiction," "Generative Writing," and "Collaborative Writing." In the same archive, however, there is also a link to "e-books."

The website also had a forum, which was particularly active from 2002 until 2006. One needed to be registered to be able to access the forum. The project used to be linked to an online review site called "Meccano" with critical articles focusing on writing and new media.⁷¹ After 2007, the activities of the workshop and of the website stopped, but almost all the links of the archive still work.

The Officina di Letteratura Elettronica (OLE; Workshop of Electronic Literature)⁷² is a project still under construction. In any case, it is the first Italian website devoted to electronic literature. However, the sections devoted to Italian experimental poetry and videopoetry are more accurate than the section concerning electronic literature. This section, actually, is quite small, but it provides several links to Italian artists' webpages, and there is a section focusing on electronic literature around the world.

PRIZES AND EXHIBITIONS

Among the activities of "trovarsi in rete," the most interesting was the organization of six editions (2001, 2002, 2003, 2004, 2005, and 2007) of a prize called "scrittura mutante" ("mutant writing"). It was devoted to electronic literature, blog writing, and email fiction written in Italian. The website is still accessible, and its archive preserves all the works that were submitted to the award since 2003.

^{69 &}lt; http://www.trovarsinrete.org/>.

^{70 &}lt; http://www.trovarsinrete.org/archivio.htm>.

^{71 &}lt; http://www.meccano.to>. The link unfortunately does not work anymore.

^{72 &}lt; http://www.elettroletteratura.org/>.

In 2011 (January 21 to February 20), the first Italian exhibition fully devoted to electronic literature was organized at the Palazzo delle Arti di Napoli–PAN. Some twenty works were hosted by as many authors coming from Europe, the Americas, and Australia.

SPAIN

Electronic literature publication in Spain normally concerns publication of works written in Spanish without distinction between Spain and Spanish-speaking areas. What appears to be interesting is that all the websites and projects devoted to electronic literature belong to academic institutions.

Hipertulia⁷³ was one of the first websites devoted to hyperfiction in Spain. It was a project of the Universidad Complutense de Madrid, directed by Susana Pajares Tosca and Joaquín M^a Aguirre. It started in 1997 as a forum and as an archive for critical and theoretical essays on hypertexts. There is a page in English that describes the project:

Hipertulia is a forum whose aim is to introduce hypertext and hyperfiction to the Spanish-speaking public. Most of the literature about hypertext is in English, so we want to help make hypertext better known by translating and commenting on some "classic" papers as well as publishing new ones.

However, in the section "Creación" two hypertexts were published: *Desde Aquí* (*From Here*) by Mónica Montes and *Pentagonal* by Carlos Labbé. The website stopped being active in 2002. In 2008, it reopened for a while, but today it appears to function only as an archive.

Also, the University of Navarra opened a website devoted to hyperfiction with links to reviews studying the subject. There is also a short list of links to access works of or about digital literature. The list links to authors such as Jim Rosenberg, Stuart Moulthrop, and Katherine Hayles.⁷⁴ The website is still accessible, but it has not been updated for several years. However, one of its sections is the "Spanish Hyperfiction Directory",⁷⁵ which contains twenty-six works by twenty-six authors all originally written in Spanish. (The majority of the links still work.)

^{73 &}lt; http://www.ucm.es/info/especulo/hipertul/indexeng.htm.

^{74 &}lt; http://www.unav.es/digilab/ric/textos/ficcion.html>.

^{75 &}lt; http://www.unav.es/digilab/hyperfiction/>.

The research group Hermeneia, created by Laura Borràs, is housed at the University of Barcelona. Hermeneia's website is a rich source for everyone who is interested in electronic literature: it hosts an anthology of more than 150 works of electronic literature (in different languages) and 350 critical/theoretical articles on electronic literature. The website is accessible in four languages (Catalan, Spanish, English, and French); however, the Catalan and Spanish versions are more often updated.

In 2010 as a pedagogical activity of the Màster en Literatura en l'Era digital (University of Barcelona) directed by Laura Borràs, two works of digital literature were translated into Catalan by masters students and then published on the Hermeneia website: Rui Torres' *Amor de Clarice* and Deena Larsen's *I'm simply saying*.

Besides the academic institution, the Badosa.com publishing house (a famous online publishing house offering works in Catalan, Spanish, English, and French) published three hypertexts. The first, Edith Checa's *Como el cielo los ojos* (*Like the sky the eyes*) was published in 1998.⁷⁷ More recently Badosa.com also published *Pinzas de metal* (*Metal Clamps*)⁷⁸ by Alma Pérez in 2003 and *Algoritmo* (*Algorithm*)⁷⁹ by Venezuelan writer Pablo Brito Altamira in 2005.

Palabras digitales (*Digital words*)⁸⁰ is a webpage devoted to electronic literature. The editor says that *Palabras digitales* is a project interested in the relationship between literary texts and digital worlds. The project was launched in Barcelona in 2010.

There are eight sections, seven of which publish electronic literature works. The majority of the texts are written in Catalan or Spanish, but some texts are in English and French. The last section advertises events concerning electronic literature (this section is not frequently updated). There is the possibility to comment on the published works, but this requires registration, and there are not that many comments.

^{76 &}lt; http://www.hermeneia.net/cat/>.

^{77 &}lt; http://www.badosa.com/bin/obra.pl?id=n052>.

^{78 &}lt; http://www.badosa.com/bin/obra.pl?id=n175>.

^{79 &}lt; http://www.badosa.com/bin/obra.pl?id=n251>.

^{80 &}lt; http://www.palabrasdigitales.com >.

*Epimone*⁸¹ is an open cyber-poetic anthology. *Epimone* is edited by Lluís Calvo and Pedro Valdeolmillos. The webpage is accessible in three languages (Spanish, Catalan, and English). There are thirty-three works in several languages (English, Spanish, French, Portuguese, and Catalan). The non-Spanish authors include Jason Nelson, Komminos Zervos, and Deena Larsen.

The second volume of the *Electronic Literature Collection* published three works in Catalan: Ton Ferret's *The Fugue Book* (the winner of the Vicent Ferrer mention for the best work in Catalan at the Ciutat de Vinaròs Digital Literature Award 2008); Isaías Herrero's *La Casa Sota el Temps* (also awarded best Catalan work by the Ciutat de Vinaròs Digital Literature Awards in 2007); and Herrero's *Universo Molécula* (the winner of the Ciutat de Vinaròs Digital Literature Award 2007). The collection also included *Synonymovie* (2004), a work by Eugenio Tisselli, a Mexican-Italian author based in Barcelona.

PRIZES AND FESTIVALS

In 2005, the first international award fully devoted to electronic literature "Ciutat de Vinaròs" was organized. The goal of these prizes was to promote the creativity of literature through new forms of writing. The prizes would be awarded to the best works of electronic literature in the categories of Narrative and Poetry. There would also be a special "Vicent Ferrer Romero" mention for the best work of electronic literature that uses mainly Catalan. Entries in several languages were allowed: English, French, Italian, Portuguese, Spanish, or Catalan. There were yearly editions from 2005–2008. Since 2009, due to the economic crisis in Spain, the prizes were suspended, but, according to Laura Borràs, a new edition will most likely be organized.

From May 24–27, 2009, the biennial international festival of e-poetry took place in Barcelona. Many authors presented their works in different locations, among them two of the most important "galleries" of the city: the CCCB Centro de Cultura Contemporánea de Barcelona (Barcelona Contemporary Cultural Center) and CaixaForum (Social and Cultural Center).

^{81 &}lt; http://www.epimone.net/>.

PORTUGAL

Portugal has an interesting tradition in experimenting with poetry. The Portuguese writer and poet Ernesto M. de Melo e Castro is considered the father of so-called videopoetry in which animation and temporality are brought to poetry.

Pedro Barbosa is considered the father of generative texts in Portugal and a pioneer in Europe. His well-known *Sintext* (an automatic generator realized in collaboration with Abílio Cavalheiro) and *Oficio sentimental* (a textual generator) were published in *alire* in 1994 (Édition Mots-Voir).

Barbosa published a new version of *Sintext* in 1997 in *alire/DOC(K)S n.10* (CD-ROM): *Sintext: neuf textes automatiques générés par ordinateur*.

The Edições UFP published in 2001 a CD-ROM titled *O Motor Textual*, an electronic book created by Pedro Barbosa in collaboration with José M. Torres.

Currently, research and publications concerning digital literature are mainly carried on at CECLICO (Centro de Estudos Culturais, da Linguagem e do Comportamente—Center for Cultural, Language, and Behavior Studies). This Research Center now integrates CETIC (Centro de Estudos sobre Texto Informático e Ciberliteratura—Center for Computer-Generated Texts and Cyberliterature Studies), at Universidade Fernando Pessoa in Oporto, directed by Rui Torres with the collaboration of Pedro Barbosa. The website⁸²—which has also an English version—contains three sections devoted to electronic literature, titled "Ciberliteratura," "Poesia Animada," and "Hiperficção" (the English version has only two genres: "cyberliterature" and "hyperfiction"). This website hosts critical and theoretical essays and works of digital literature (particularly written in Portuguese).

This research group also publishes the journal *Cibertextualidades*.⁸³ Since May 2006, the journal has published five issues (the sixth is forthcoming in 2014). All issues are freely available online at the website above.

The second issue of *Cibertextualidades* (2007) was titled "Ciberdrama e Hipermédia" ("Cyberdrama and Hypermedia") and edited by Rui Torres and Luis Carlos Petry. It included the CD-ROM *Alletsator* by Pedro Barbosa and Luis Carlos Petry (with collaboration from Rui Torres). *Alletsator* was first automatically generated by Pedro Barbosa using the textual synthesizer *Sintext*. It was then performed as a theatrical work by *Esbofeteatro* and presented to the audience at

^{82 &}lt; http://cetic.ufp.pt/>.

^{83 &}lt; http://cibertextualidades.ufp.edu.pt/>.

the Teatro Helena Sá e Costa in Porto during the city's 2001 role as the European Capital of Culture. According to Barbosa, "this work was conceived as a pioneering text of cyber-dramaturgy." The CETIC/UFP Press also published three electronic literature works by Rui Torres: *Amor de Clarice: Poema Hipermédia*, a hypermedia poem on CD-ROM (2006); *Húmus Poema Contínuo* (2011); and *Poemas no meio do caminho* (2012).

Rui Torres' *Amor de Clarice* and *Poemas no meio do caminho* (2009) were published in the *Electronic Literature Collection* volume 2 in 2011. The latter also won the Digital Literature Award Prize Ciutat de Vinaròs in 2009.

FRANCE

France has a very long tradition of digital experimentation with literature. In 1964, Jean Baudot published La machine à écrire (The typewriter), an important example of France's "computer-assisted literature" ("littérature assistée par ordinateur"). He created a combinatorial program, then gathered the generated texts into the book published by Les Editions du Jour. At this stage, experiments still concerned printed or recited texts. It is also relevant to mention "Ouvroir de Littérature Potentielle", or OuLiPo for short, a group founded in 1960 by François Le Lionnais and Raymond Queneau. It was an international group, even though it mainly consisted of French writers and mathematicians devoted to the discovery of various forms of constrained writing. OuLiPo itself was not so much concerned about the possibilities that computers offered to literary production, but, in 1981, OuLiPo members Paul Braffort and Jacques Roubaud created the ALAMO⁸⁵—"Atelier de Littérature Assistée par la Mathématique et les Ordinateurs" (Workshop for Mathematics and Computer-Aided Literature). True to the OuLiPian spirit, the ALAMO was mainly interested in the computer as a tool that facilitates combinatorial work. It is worth mentioning that the ALAMO received strong support from the French government. During an international exhibit held in Paris at the Centre Georges Pompidou in 1985 titled "Les Immatériaux," the

⁸⁴ Barbosa, "From Textual Random Synthesis to Hypermedia - The Genesis of a Multimedia Electronic Work: ALLETSATOR/ROTASTELLA."

⁸⁵ In 2008, there were seventeen members in the ALAMO group. Cf. Philippe Bootz, From OULIPO to Transitoire Observable: evolution of the French digital poetry, at: http://elmcip.net/sites/default/files/attachments/criticalwriting/bootz from oulipo.pdf (accessed, January 29 2011).

ALAMO group introduced its first computer-generated poems, which heralded the birth of a new form of visual poetry animated by this new medium.

The same year, the first issue of the *Art-Accès* review, the first art review on *Minitel*, was published. Eighty artists participated in this issue, spanning 1,500 *Minitel* pages. Text animation had a prominent place thanks to authors like Philippe Bootz, Frédéric Develay, Claude Faure, Guillaume Loizillon, and Tibor Papp. At the time, all of them were in the sphere of visual and sound poetry and were to play a key role in the evolution of French digital poetry. In total, only three editions were published, sponsored by France Telecom (who was the proprietor of this telematic system and method of production). Issue number 0 was published for the exhibition "Les Immatériaux" (the last issue was published in 1986).

In 1994, Jean-Pierre Balpe founded a publishing house, ILIAS, which published a few automatic or combinatorial generative texts by Balpe on disks. They included *La Masque* and *Paysages sans ombres* (under the pseudonym Patrice Zana). There is no reliable record of the whole publication list.

While the first hypertextual narratives were born in the United States, starting with *afternoon*, *a story* (1987, Eastgate Systems) by Michael Joyce, it was in the mid-1990s that the first works of hypertextual fiction were published in French on CD-ROM. *Frontières Vomies* was published by the author Jean-Marie Pelloquin in 1995. In 1996, the hypertextual fiction *20% d'amour en plus* by François Coulon was published by François Kaona: Ici & Ailleurs, and, in 1997, Frank Dufour's *Sale Temps* (which is an interactive drama) was published by Microfolie's. François Coulon wrote another work, *Pause*, which was published in 2002 as a CD-ROM, again by Kaona Publisher in a collection titled "interactive fictions."

Following this interest in the relationship between literature and computers, in 1996 the French publishing house Flammarion published *Opération Teddy Bear* (on CD-ROM) by Edouard Lussan.

In 1999, the famous French publisher Gallimard published a CD-ROM edited by Denize Antoine and Magné Bernard entitled *Machines à écrire*. The CD-ROM held a digitized version of *Cent mille milliards de poèmes* and *Un conte à votre façon* by Raymond Queneau and 243 cartes postales en couleurs véritables by George Perec.

⁸⁶ Bouchardon, "Filiations and History of Digital Literature in France," 98-111

⁸⁷ It should be noted that Interactive Fiction (IF) in Anglo-American world has a distinct meaning of "text adventure game."

Some more CD-ROM publications have taken place, such as Jacques Donguy's *Phares gamma*, published in 2002 by SON@RT 033, which is a self-generated work, infinite by nature, where words, images, and sounds are posted together. That year, Véronique Hubert's *Histoire de la Femme aux Grosses Mains* was also published by Éditions Incertain Sens (Université Rennes) in collaboration with FRAC Bretagne. An illustrated book of poetry is included as the last chapter of this CD-ROM.

There have also been online publications of individual, hypertextual, and other types of French electronic literature works, but there is no comprehensible list of these available. Serge Bouchardon, however, has compiled a selection of twenty works in his paper "Filiations and History of Digital Literature in France" (2011).

PORTALS AND REVIEWS

The oldest digital review in Europe is considered to be *alire*. The L.A.I.R.E. collective (*Lecture Art Innovation Recherche Écriture*)⁸⁸ was created in October 1988, and the collective started the *alire* review. The founding members were Philippe Bootz, Frédéric Develay, Jean-Marie Dutey, Claude Maillard, and Tibor Papp. The review has published thirteen issues (*alire13* was published in 2009, while *alire12* in 2004). The information for where to find copies of the review is on the website.

The very first issue (0.1) was created for the inauguration of the review in the Pompidou Centre in 1989. This edition is a mixed-media work that contains programmed poems on diskettes, printed works on paper, and a work of sound poetry on a video cassette. With this issue (March 1989), the specificity of the review became clearer: there were diskettes with a notebook which contained only theoretical thoughts (there were no more video cassettes or printed works). This was the first clear assertion in France that electronic literature existed and that its only medium was the computer. At the beginning, it published only animated poetry created by L.A.I.R.E.'s authors. Since 1992 (alire6), it has opened up to works of electronic literature of all genres created by French authors, and, since 1994 (alire8), it has started to published foreign authors.

The *alire* journal also collaborated with KAOS for issue 138 of the journal SVM (Science and Life Micro) in May 1996. This was a significant collaboration

^{88 &}lt; http://motsvoir.free.fr/LAIRE.htm>.

in that SVM has a large distribution and visibility through newsstands. The journal has also been shown in several galleries and exhibitions in France and in other countries. For instance, the venue Lara Vincy in Paris organized in their multimedia gallery an exhibition called "le temps d'alire" (time of alire) from October to December 1995. It is also particularly representative of the different forms of digital poetry before the advent of the Web and was the only review devoted to digital poetry up until 1996. Its publications are irregular, but the totality of the work is still distributed, and the review continues to be published.

Another important review is the DOC(K)S, 89 even though it is not completely devoted to electronic literature. The DOC(K)S review was created in 1976 by Julien Blaine, and it has been directed by AKENATON (Philippe Castellin and Jean Torregrosa). Since 1990, it has been a reference in the field of sound and visual poetry. In 1997, it undertook a survey on the use of diverse media in poetry, starting with an issue about the CD-ROM (alire10/DOC(K)S 3.14/15/16), in association with the alire review. It continued with an issue dedicated to sound (DOC(K)S 3.17/18/19/20, 1998), another dedicated to the Web (DOC(K)S 3.21/22/23/24, 1999), and a final one dedicated to the DVD (DOC(K)S 3.34/35/36/37, 2004/2005). Some works were computerized to be presented on a digital medium. These publications also contained programmed works.

The *DOC(K)S* website hosts several works of electronic literature, particularly in French but not only; there are works, for instance, by Jim Andrews, Robert Kendall, Caterina Davinio, Komninos Zervos, and so on—in this sense, it is trans-linguistic.⁹⁰ There is an alphabetic archive of the authors, and a section is devoted to critical and theoretical essays. Research can also be done alphabetically in the section "réseaux" where it is possible to find the websites of the authors and other useful links to reviews, festivals, etc.⁹¹

The review *T.A.P.I.N.* (1997) that is mostly devoted to sound and visual poetry also has a website,⁹² which does not specifically publicize electronic literature. However, some works of electronic literature have been hosted. The web review

^{89 &}lt; http://www.sitec.fr/users/akenatondocks/>.

^{90&}lt;http://www.sitec.fr/users/akenatondocks/DOCKS-datas_f/collect_f/generiqueanim.html>.

^{91 &}lt; http://www.sitec.fr/users/akenatondocks/DOCKS-datas_f/reseaux_f/reseaux.html>

^{92 &}lt; http://tapin.free.fr/>.

*Panoplie*⁹³ has been devoted to contemporary creation since 1999. This review is not specialized in electronic literature, but, in the 2000s, many works of electronic literature were published. Unfortunately, some of the links are broken.

The authors of *alire* were convinced that programming was at the center of electronic literature and that it was essential to specifically investigate the new programmed forms that could be produced. In 2003, following Alexandre Gherban's initiative, the *Transitoire Observable* collective was created.⁹⁴ It was based on the assertion that all the components of the *device* (screen, machine, and program) were interdependent in the work. The founding act is a manifesto that Alexandre Gherban, Philippe Bootz, and Tibor Papp co-signed in February 2003.

The collective openly opposed itself to videopoetry, which considers programming a mere tool used for the production of a fixed multimedia object.

The *Transitoire Observable* does not exist anymore. However, its archive is still accessible online with texts on critics, theory, and works can be read. The main page on the website reads:

having considered that most of the original objectives have been reached, on a common agreement, *Transitoire Observable* ceased to exist on December 6th 2007. We leave here, for consultation purposes, the theoretical texts, which constitute the archives of *Transitoire Observable*.

However, Bootz (2010) stated:

even if the collective officially dissolves, it did not in fact completely disappear. Patrick Burgaud, Philippe Castellin, and I continue to collaborate on common projects. It is thus possible that *Transitoire Observable* is reborn, because the concept remains relevant and current.

The main French website devoted to electronic literature is "e-critures.org." It is described as a website focusing on "electronic literature, that is to say that kind of literature that could not exist without a computer." The website hosts electronic works and essays on both criticism and theory. Twenty-seven works are hosted on the website—one work for each author; however, some of the links do not work anymore. If one is a member of the group, he/she can submit a work. Also, to sub-

^{93 &}lt; http://panoplie.emakimono.org/>.

^{94 &}lt; http://transitoireobs.free.fr/to/>.

^{95 &}lt; http://www.e-critures.org/>.

mit an article, one needs to be a member of the group. E-critures.org consists also of a mailing list. The list, created in November 1999, came first. It has at present around 160 members, and more than 5000 messages have been posted since its creation). According to Serge Bouchardon (2011), "the actors of the e-critures list are not only interested in the works, but also in the issue of the genres."

The first version of the website, created in January 2001, made it possible for the authors to present their works ("individual creations") but also to come together in a common space ("collective creations"). In order to enrich the contents of the exchanges with the visitors of the site, to create a community of digital literature creation, and to reference all the works of its members, a new version of the website was launched in November 2003, following Gérard Dalmon's initiative. The latest version dates back to January 2008.

ANTHOLOGIES

In October 2004, Philippe Bootz published a CD-ROM "créations poétiques au XX° siècle visuelles, sonores, actions" (poetic creations in the twentieth century visual, sound, action) where several examples of French digital poetry from different issues of the review alire are shown. The CD-ROM was published with the support of the CRDP (Centre Régional de Recherche Pédagogique—Regional Center of Pedagogical Research) in Grenoble. The CD was specifically created with an educational aim: it is a tool for teaching art, particularly in high schools (Bootz 2010).

Besides being published on the author's personal websites or in the reviews previously mentioned, some French works were published in both volumes of the *Electronic Literature Collection*: in the first volume, *The Set of U* (2004) by Philippe Bootz and Marcel Frémiot, *Jean-Pierre Balpe ou les Lettres Dérangées* (2005) by Patrick-Henri Burgaud (French artist based in Netherlands); and in the second, *Separation / Séparation* (2002) by Annie Abrahams (Dutch artist based in France) and *Toucher* (2009) by Serge Bouchardon, Kevin Carpentier, and Stéphanie Spenlé.

PRIZES AND FESTIVALS

In 2009, Jean-Pierre Balpe co-organized an award devoted to electronic poetry. The prize, called "prix poésie média," is one part of a biennial festival

devoted to contemporary poetry (la Biennale des Poètes de la Val-de-Marne). More than 150 works were sent, and due to this success a call for a second edition was opened in 2010. The website clearly states which works are considered media-poetry:

Works considered "media poetry" are those that place contemporary technologies at the service of poetry, be it within the framework of a performance or in that of a recorded and projectable work. Among the many forms accepted are included videopoetry, digital poetry, multimedia poetry, sound poetry, interactive poetry, and poetic installations in physical space or on the Internet. Works that illustrate a poem will not be considered (these are works that use sound or images to represent or complement a poem, for example). There are no restrictions regarding the form or content of the media poems submitted.

The scope of the prize seems to be truly international in that entries came from several countries, and the first edition was won by American/Australian Jason Nelson's *Secret of an uncomfortable ocean*.

Also "La Société des gens de lettres de France" organized a prize in media-writing: "Grand Prix SGDL de l'œuvre Multimédia." The prize has not always been won by a work of electronic literature. In 1999, Antoine Denize's Machines à écrire won the prize. In 2001, Dominique Autié won with his work titled De la page à l'écran: Réflexions et stratégies devant l'évolution de l'écrit sur les nouveaux supports de l'information (Éditions Élæis, Montréal), a book focusing on the relationship between writing and new media. More recently, works on the web were awarded, such as Philippe Boinsard, a French author of digital literature, who won the first prize for his website 1007, and YOUNG-HAE CHANG HEAVY INDUSTRIES, 1007 who won the award in 2008.

In 2007, the biennial festival of electronic poetry, E-Poetry 2007, was organized in Paris at the University of Paris 8. During the event, several evenings were organized by the association MOTS-VOIR (publisher of *alire*) and also sponsored by DICREAM (Ministère de la culture et de la communication). Many artists presented their new works in key cultural venues of the city, such as Divan du Monde, Le Cube, and le Point Ephémère.

^{96 &}lt; http://databaz.org/xtrm-art/>.

^{97 &}lt; http://www.yhchang.com>.

SWITZERLAND

In the Italian, Rhaeto-Romance, and French-speaking areas, there is an active research group connected to the University of Geneva. Infolipo (Informatique et Littérature Potentielle—Informatics and Potential Literature), 98 created in 1987 by Ambroise Barras and Pascal Delhom—following the ideas of Oulipo and ALAMO—is a research group devoted to digital art and literature. They have published several articles and volumes together as a group focusing on electronic literature. Infolipo's website also has a small but interesting archive of works, which perform experiments with literature and computers. It is titled "variations combinatoire" and is where works by Perec, Queneau, and Butor are regenerated randomly by the machine.

However, the most interesting activity of the group is the offline dissemination of digital art and literature. In the last several years, Infolipo has co-organized national and international festivals devoted to digital art and/or literature such as <home_page/> (May 2004, Garden Party 2004, Geneva), expoésie (May 13–30, 2005, Lausanne), Virage au Nord (April 28, 2006, Stade de Genève), mots images paysages (March 1–April 13, 2008, Lancy), and projectangos (March 26, 2010, Geneva).

LUXEMBURG

It appears, according to our network of expert contacts, that there is no publication of electronic literature in Luxemburg.

BELGIUM

Belgium does not appear to have portals or anthologies devoted to electronic literature, except for a special issue of the Flemish journal *Dietsche Warande & Beaufort*. However, a few examples of digital literature have been either published online or on CD-ROM.

^{98 &}lt; http://www.infolipo.org>.

^{99 &}lt;a href="http://www.infolipo.org/ambroise/varcom/index.html">http://www.infolipo.org/ambroise/varcom/index.html.

¹⁰⁰ DWB, August 1999, n. 4, with a CD-ROM) edited by Eric Vos and Jan Beaten.

Anne-Cécile Brandenbourge's *Apparitions inquiétantes* (1997–2000) is one of the first hypertexts written in French and published online. ¹⁰¹ In 1999, *Voyage avec l'ange*, an interactive fiction by Tamara Lai with music by Serge Winandy and Jean Furst, was published by Thalamus and Magic Media on CD-ROM. Another example of hypertext is G. Berche-Ngô's *Hypertexte*, ¹⁰² which is more recent, as it was published online in 2010.

NETHERLANDS

The Netherlands present a quite interesting peculiarity, in that it offers an example of a community constituted by an institution: digidicht. The website was launched in 2008 as a virtual platform for Dutch poets, visual artists, and designers. The idea was that they could meet on the website and negotiate in order to create electronic literature. It was funded by the Dutch Literature Fund and the Visual Art, Designer, and Architecture Fund. Some of the works hosted on the website were created thanks to another literary project, "copoetry on the screen." Once a year, a call for works is launched and five works are funded and then shown in the international festival, Poetry International (and eventually published on digidicht website).

The website is now more an anthology of Dutch electronic literature, according to Yra van Dijk. Fifty-two works (written in Dutch) are hosted there: thirty-one by "copoetry on the screen," twenty by workshops, and just one by digidicht's web community. The works are divided according to different genres: hypertext fiction (two), interactive fiction (five), generative art (three), codework (two), and Flash poems (forty-two).

The second volume of the *Electronic Literature Collection* (2011) published a Dutch digital poem translated into English, *Ah* by K Michel and Dirk Vis.

UNITED KINGDOM

It appears that most authors of electronic literature work within a self-publishing model. Simon Biggs (2010) states that the following is probable:

^{101 &}lt; http://www.anacoluthe.be/bulles/apparitions/jump.html>.

^{102 &}lt; http://www.hypertexte.be/>.

^{103 &}lt; http://www.digidicht.nl >.

Many of these authors, if not most of them, have chosen to work with digital and networked media, at least in part, as they do not wish to have their work mediated through publishing industry or mainstream art world mechanisms.

There are many artists and authors active in electronic literature; however, if one wishes to access their work, it is generally necessary to visit their personal websites. Biggs (2010) explains, "This means that the responsibility for the maintenance and dissemination of such artworks remains with the authors themselves." This also means that gathering representative data of the UK situation is particularly difficult, and there may be significant gaps in our account.

One of the first publishers in the UK that started to present and promote artists working with Internet and new media was *Ellipsis*. They produced a series of CD-ROMs of artists like Simon Biggs. Unfortunately, the website is now mostly empty, expect for *Softopia* and *The Internet and Everyone*, and seminal online activities in London from the early 90s coordinated by John Chris Jones. The *Ellipsis* was taken over by Chrysalis, and they disposed of most of the back catalog. *Film and Video Umbrella*¹⁰⁵ worked closely with *Ellipsis*, amongst other partners. They used to work with artists whose work crossed over into the area of digital language.

In 1998, the digital artist Stanza created the website *Soundtoys*. Stanza described the website as "the Internet's [sic] leading space for the exhibition of exciting new works of audio-visual artists." There are several artists known for their work in digital literature hosted on it, such as Annie Abrahams, Heath Bunting, Tamara Lai, Peter McCarey, Jason Nelson, and Jörg Piringer. Interestingly, one section is called "for kids." Notably, *Soundtoys* hosted the works on its own server. The website was very active from 2002 to 2007, but submissions dwindled around 2008 with a final submission dated May 2009. There have been no evident new projects in development as of publication.

There is also a relatively new project called *Electric Bookshop*, which, despite its name, seems to be more a discussion forum than a bookshop: "the Electric Bookshop

^{104 &}lt; http://www.ellipsis.com/>.

^{105 &}lt; http://www.fvu.co.uk/>.

^{106 &}lt; http://www.soundtoys.net/>.

wants to bring together people with a common interest in technology, literature, design, and publishing to meet and talk about the brave new world of books in the digital age." ¹⁰⁷

REVIEWS AND COLLECTIONS

In 1996, Sue Thomas created the project *trAce* and launched the website. In an interview still accessible online, she explains her project:

trAce came out of my own interest, as a writer about technology, in the Internet and what it offers for writers. It began in 1995 as a small research project at the Nottingham Trent University. I was teaching writing at the time, and, along with an MA Writing student Simon Mills, started a project called *Cyberwriting* which aimed to collect and review websites for writers. In '96 we renamed it to *trAce* and launched the website. In 1997, we received a 3-year grant from the Arts Council of England to establish an online community for writers, and that is when we really started to expand. Our original intention was simply to find and pass on information, but we have evolved into something much more complex. I think of *trAce* now as rather like an art center—we still provide information, but we also provide training, studio space, exhibitions and all kinds of participatory creative activities.¹⁰⁸

The website is still available but inactive since 2006; its archive contains ten years of "writing on, about, and via the Internet." In the section "frame," the six issues of the *frAme*: *Online Journal of Culture and Technology* are still available. Among other artists, there are works by Talan Memmott, Alan Sondheim, and Mez.

In the UK there are no anthologies or collections devoted to electronic literature, but some works *from* the UK were published in both volumes of the (US-based) *Electronic Literature Collection* such as John Cayley's *windsound* (1999), *wotclock* (2004, with photographs and additional production by Douglas Cap), and *Translation* (2004, with music by Giles Perring); Donna Leishman's *RedRidinghood* (2001) and *Deviant: The Possession of Christian Shaw* (2004); Maria Mencia's *Birds Singing Other Birds' Songs* (2001); Babel and Escha's *Urbanalities* (2005); Alison Clifford's *The Sweet Old Etcetera* (2006); and Christine Wilks' *Fit-*

^{107 &}lt; http://electricbookshop.wordpress.com/about/">http://electricbookshop.wordpress.com/about/>.

^{108 &}lt; http://www.3ammagazine.com/magazine/issue 3/articles/intertext interview sue thomas trace website.html>.

ting the Pattern (2008) and *Tailspin* (2008). And several authors are hosted in the Electronic Literature Directory.

PRIZES AND FESTIVALS

In 1998/99 *trAce* co-launched a prize called "*trAce/Alt-X* International Hypertext Competition" (with Sue Thomas from *trAce* and Mark Amerika from *Alt-X*). The first edition was won *ex equo* by Jenny Weight's hyperpoem "Rice" and William Gillespie, Scott Rettberg, and Dirk Stratton's hyperfiction *The Unknown*. For the second edition, both the title of the competition and the form of the works were altered. The title changed to the *trAce/Alt-X Media Competition*. The second competition was won by Talan Memmott's *Lexia to Perplexia*.

In 1998, *trAce* ran the "*trAce* electropoetry competition" in conjunction with the "NOW Festival of Electronic Arts." The poems that got the three first positions are still available online. ¹⁰⁹ 2004 saw the launch of the New Media Article Writing Competition. There were three categories and four prizes plus one honorable mention. Although all these prizes were discontinued, they demonstrate the interest in such objects and studies. For the second edition of the "*trAce/Alt-X* Media Competition," the website highlights that more than one hundred works were submitted. Today, neither of these prizes is running, and the *trAce* website serves mainly as an archive.

In 2010, a prize for new media writing was created by the Poole Literary Festival with the partnership of the Media School at Bournemouth University. ¹¹⁰ The website states the following:

We are asking all entrants to create an engaging and interactive narrative, through the use of digital technologies. Typically, *new media writing* exploits the potential of the web, which offers readers/viewers a range of narrative activity beyond reading a piece of text online or watching a film. For example, a viewer might need to click the mouse on a word or image on screen to activate the next sequence of text, or to link them to the next chapter.

^{109 &}lt; http://tracearchive.ntu.ac.uk/electropes/index2.htm>.

^{110 &}lt; http://www.poolelitfest.com/new-media-prize.php>.

The first edition of the prize went to Lorenza Samuels (from the University of Bournemouth) for *Evidence*¹¹¹ and Christine Wilks for *Underbelly*. ¹¹²

The UK also hosted the most important event in electronic poetry in 2005 (September 28–October 1), as the international festival and conference E-Poetry took place in London. On that occasion, many artists presented their works such as John Cayley's *Transl(iter)ation*, Maria Mencía's *Cityscapes: Social Poetics/Public Textualities*, and Jerome Fletcher's ... *Reusement–starting from scratch*.

PORTALS AND ARCHIVING INITIATIVES

Hyperliterature Exchange ¹¹³ is a UK-based online project managed by Edward Picot. Exchange was launched in summer 2003, and its purpose is to review and provide an online directory of hyperliterature for sale. Picot clearly says that the main function of the exchange is to promote the sale of hyperliterature (not to sell or publish the works by themselves), released by small independent publishers and writers' cooperatives or self-published. Examples include electronic literature, cyberliterature, hypertext, new media literature, nonlinear literature, digital poetry, and Flash poetry. The main page states that 132 titles are listed at the present, but it is impossible to say what "at the present" means because there is no year. The majority of the works are electronic literature; however, there is also some work in critical theory by some scholars interested in electronic literature. Exchange lists electronic literature from several countries, not only UK productions.

The UK offers a wide range of public initiatives to preserve digital art, and it appears to be rich in offline presentations in galleries and museums. Although these initiatives do not intend to preserve/present electronic literature specifically, due to its nature, an interesting amount of electronic literature works are preserved (Biggs 2010). The public initiatives involve both museums and academies.

 Lux^{114} is an institution whose specific focus is on video art and experimental film. None of Lux's projects specifically address electronic literature, but a number of artists in their collections have been active in this area.

^{111 &}lt; http://www.evidence-interactive.co.uk/index.html>.

^{112 &}lt; http://www.crissxross.net/elit/underbelly.html>.

^{113 &}lt; http://hyperex.co.uk/index.php>.

^{114 &}lt; http://www.lux.org.uk/>.

Since 1992, the *Foundation for Art and Creative Technology (FACT)*¹¹⁵ has been an instrumental UK organization in the commissioning and exhibition of new media art. Based in Liverpool and housing state of the art cinemas and galleries, *FACT* has mounted some of the seminal exhibitions of media arts held in the UK, including the Videopositive series of festivals. Biggs (2010) explains, "*FACT* has built up an extensive documentary resource of artists work with new media, including many authors of digital literature."

Intute (2006) is an academic initiative. It has structured its database into sections for the Sciences, Arts and Humanities, Social Sciences, and Health Sciences. As far as Arts and Humanities is concerned, there is no section devoted to literature. However, there are sections for visual and performing arts, film, music, and cross-disciplinary arts that include "links to material of relevance to digital literature studies" (Biggs 2010). The database is fully searchable and contains records of the work of authors who have been active in electronic literature, many of them non-Europeans. Intute is not an archive but functions as a portal to existing online resources.

IRELAND

The Republic of Ireland and Northern Ireland, more than the rest of the UK, seem to be interested in digital art rather than specifically in electronic literature. In 2009, Belfast (UK) hosted the fifteenth edition of the ISEA International (Inter-Society for the Electronic Arts), a non-profit organization fostering interdisciplinary academic discourse and exchange among culturally diverse organizations and individuals working with art, science, and technology. (In 1998, it was held in Liverpool and Manchester.) This electronic art festival is not devoted to electronic literature, but some works with predominant literary aspects were presented, and some of the major events were scheduled in Dublin.

The Electronic Literature Directory only hosts Michael J. Maguire, who appears to be the only author of electronic literature based in Ireland.

^{115 &}lt;a href="http://www.fact.co.uk/">http://www.fact.co.uk/>.

¹¹⁶ Biggs, "Publish and Die. The Preservation of Digital Literature within the UK," 191-202.

FINDINGS BY CATEGORY

COMMERCIAL PUBLICATIONS¹¹⁷

The general rule in the field of e-lit is an author's non-commercial self-publication and its more elevated or glorified form: publications of a literary group (such as Perfokarta in Poland or Infolipo in Switzerland) that sooner or later may find their way into more inclusive portals and occasionally to online journals as well. The few exceptions are the short-lived Editions Cyberfiction series, published by update verlag in Germany/Switzerland between 2000 and 2004 (four volumes), the short-lived *Elettro Libri* in Italy, *ILIAS* in France in the mid-1990s, the still active *alire* series in France (1989–present, fourteen issues), published by the mots-voir association, and the newcomers in Italy (*Quintadicopertina*) and Poland (*Ha!art*). Multimedia literary works were and still are sometimes commercially published on CDs and DVDs, but, beyond these and the other fringes of the world of the visual arts, electronic literature is clearly a community and not a market-driven scene.

The Hypertextual Exchange, a British site, promotes and encourages "the sale of hyperliterature—electronic literature, cyberliterature, hypertext, new media literature, nonlinear literature, digital poetry, Flash poetry, etc." and has in its catalog digital fiction and poetry published by small publishers in France, Canada, Australia, and the US (including Eastgate) or by the authors themselves. As far as we can tell, this enterprise (run by Edward Picot) is unique in Europe.

REVIEWS AND JOURNALS

Outside France and its history of online and offline literary journals publishing electronic literature (ever since the *Minitel*/teletext era and *Art-Accès* in the mid-1980s), we did not come across a single review or journal that was designed solely for publishing electronic literature. It is much more typical that e-lit is published together with scholarly papers, net art, or digitized literature, especially with sound, visual, and concrete poetry.

¹¹⁷ The word "commercial" with all its connotations may be misleading here. In this survey, it simply means publications that are not available free of charge.

In France, journals are closely tied to avant-garde groups and practices, which is exactly what could be expected given the history of French avant-garde movements in the last century. The main example is the L.A.I.R.E group and its review *alire*, although the latter has expanded far beyond its original aesthetics as well as becoming more international over the years. The importance of *alire*, the L.A.I.R.E, and *Transitoire Observable* both in French electronic literature and in establishing international networks for the theorists and practitioners of e-poetry has been without peer in Europe. The major online reviews in France that are relevant in the context of electronic literature, DOC(K)S (1976–present), *Tapin* (1997–present) and *Panoplie* (1999–present), are primarily focused on sound and visual poetry, but e-lit still has a notable presence in these publications.

Online journals publishing electronic literature also exist in Poland (*Techsty*; 2003–present; six issues) and Portugal (*Cibertextualidades*; 2006–present; four issues). The former is exceptional in its scope and its activities in translating electronic literature. In the late 1990s, there were also online journals in the UK (such as *Frame*), but by the 2000s they seem to have faded away.

PORTALS

Portals and websites constitute the main publishing channel and model for European e-literature. They publish and give access to new works, archive old ones, and are to some degree connected with each other as a rudimentary networked infrastructure, and they do all this for free. In some cases, the differences between a portal and a digital library or archive seem to blur as is the case with the encyclopedic German e-lit and net art (meta)portal Netzliteratur.net.

Outside Germany, major e-lit portals exist at least in Switzerland (cyberfiction.ch), Poland (*Techsty*, *Ha!art*, and *Perfokarta*), Finland (*Nokturno*), Denmark (*Afsnit P*), Norway (*Elinor*), Spain/Catalunia (*Hermeneia*), France (*DOC(K)S*, *e-critures*), and the United Kingdom (*Hyperliterature Exchange*, *Lux*, *FACT*, *Intute*). The three Scandinavian portals form a loose network although they are different in scope (*Elinor* and *Afsnit P* are regional and *Nokturno* is more international).

What Simon Biggs (2010) says about the situation in the UK could equally well be said about e-lit in Europe:

It remains the case that while there are many artists and authors active in electronic literature in the UK, if you wish to access their work then you generally have to visit their personal websites. This means that the responsibility for the maintenance and dissemination of such artworks remains with the authors themselves.

It is only logical then that the problem and the various initiatives for archiving electronic literature will remain on the agenda for a long time to come, and it is here that the social, cultural, financial, and practical role of networked national and international digital libraries could be crucial.

ONLINE ART SITES INCLUDING ELECTRONIC LITERATURE

These sites are hard to detect, because the metadata and conceptual framework surrounding works that belong both to e-lit and net (or multimedia) art are rudimentary at best and misleading at worst. In our data, there are several online sites dedicated to both visual arts and literature, but to explore the countless sites focusing on digital and net art hoping to find bits and pieces of misplaced electronic literature would be an exercise in futility.

Many portals and literary artists already situate themselves in the nexus of net art and literature, but usually the dividing lines between the two are clearly demarcated in the portals. The case may be slightly different with the Slovenian artists mentioned in this survey as their work could be easily classified either way. The overall pattern is similar to the situation Simon Biggs described above: in order to access these works or get basic information about them you have to access the artists' personal websites.

As might be expected, animated e-poetry and e-poetry performances have also found their way to social media. For example, Infolipo and p0es1s have successfully used YouTube in delivering certain types of e-poetry and e-poetry performances.

OFFLINE ART SITES INCLUDING ELECTRONIC LITERATURE

For obvious reasons, this is an even harder scene to explore and catalog. By necessity only a fraction of electronic literature is visually or multimedially oriented, and only a small fraction of this fraction attracts the attention of museums and art galleries. Text-based installations, textual sculptures, and visual and kinetic

poetry may and do often enter offline art venues that sometimes also commission them. The series of p0es1s exhibitions and symposia (1992–present) in Germany and Brazil (accompanied by its online archives) is the most successful long-term example in the data we managed to gather. Historically speaking, probably the most important single event was the "Les Immatériaux" exhibition in Paris in 1985. In Slovenia, electronic literature has close ties to net and new media art. The dynamics of this expanded field of electronic literature are thoroughly analyzed by Jaka Zeleznikar (2012).

Ars Electronica gave birth to the first German hypertext novel in 1989, but since then the paths of electronic literature and Ars Electronica have rarely crossed (at least according to the online archive of Ars Electronica). Seminars, festivals, exhibitions, conferences, and conference series devoted to electronic literature and/or digital arts, such as E-Poetry (biannually from 2001) and Digital Arts and Culture (1998–present), form major venues for showcasing and exhibiting electronic literature for one's peers if not also for a larger audience, and, in some cases, media art exhibitions and festivals also commission new works.

ELECTRONIC LITERATURE COLLECTIONS

Surprisingly, there are no European equivalents of ELO's two electronic literature collections published in the US, although both of these include several European works. However, the situation is about to change as there is an ELMCIP anthology in progress. *Hyperfiction, ein hyperliterarisches Lesebuch* (1999), with its twenty-four German hyperfictions (and eleven scholarly essays), is a snapshot and showcase for German hyperfiction in its peak period, and the collection of visual, concrete, and digital poetry Philippe Bootz edited to be used in high schools clearly had admirable pedagogical purposes. All in all, the lack of electronic literature collections is hard to explain given the long history and prehistory of electronic literature in Europe. On the other hand, and, as can be seen from Chris Funkhouser's *Prehistoric Digital Poetry* (2007), there is much archaeological work and guess work to be conducted and concluded before we can firmly establish even the basic facts of our electronic literature heritage.

COMPETITIONS

The annual Vinaros prize (2005–present) is clearly the most successful electronic literature competition in Europe; it is truly international in its scope although it also recognizes local talents (writing in Catalan). Despite its success, the competition's future is unclear at the moment, and it may well be discontinued. The new French biannual international competition, Poesiemedia (media poetry; 2009–present), is close to Vinaros in its scope, but it is too early to say what its future prospects will be. On the other hand, no competition is truly international, as the number of accepted natural languages is always limited: the Vinaros competition accepted contributions in Catalan, English, French, Italian, Portuguese, and Spanish, and the Poesie-media prize in English and French.

Germany is definitely the country with the most attempts at establishing competitions and prizes for electronic literature. The problem seems to be that the scene and the cultural niche was determined for a relatively long time by the failures of the first attempt, the Pegasos Prize (1996–1998), which was also the first electronic literature competition in Europe. Moments when electronic literature is more or less suddenly brought to public attention and spotlighted for discussion can be decisive, especially if those impulses arise from outside the field itself and people with no expertise in electronic literature dominate the jury. It will be necessary to study the actual effects and functions of electronic literature prizes in Europe in comparative and contextual terms along the lines that Patricia Tomaszek (2011) recently suggested and situate the findings in a broader context even more recently provided by Beat Suter (2012).

In Italy, an annual prize called scrittura mutante ("mutant writing") ran from 2003 to 2007, focusing on electronic literature, blog writing, and email fiction. The only e-lit competition in Scandinavia was organized in 2005 in Norway. It managed to get some public attention and provide an incentive to writers to try producing electronic literature. However, after the competition, the published authors didn't continue their careers in electronic literature. This leaves us with Poland and Ha!art's monthly award for poetry, which seems to be a good concept as it only demands one poem from each participating author.

Finally, it is important to notice the cyclical or periodic nature of competitions. While they all seem to wither away sooner or later, other competitions will almost certainly replace them, at least in Germany.

EUROPE-WIDE PATTERNS

Based on our findings, it is clear that there are several different patterns in e-lit publishing and distribution in Europe. In a few countries, we couldn't find electronic literature at all (Romania, Greece, and Luxemburg). In Eastern Europe except Poland (Hungary, Bulgaria, the Czech Republic, and Slovakia), in the Baltic countries (Estonia, Latvia, Lithuania), and in the former Yugoslavia (Croatia, Serbia and Slovenia), as well as in Iceland and Ireland, authors' self-publications existed but national portals were not found. Surprisingly, the pattern was the same in Italy, although an extensive database on Italian experimental literature including electronic literature is well on its way. In the Nordic countries (except Sweden and Iceland), we find the combination of regional and international portals and authors' websites. As the scope of the regional Elinor portal covers Sweden, too, we can include it in the same pattern as its Nordic neighbors.

Almost self-evidently, the biggest European nations and languages (in population size and the amount of native speakers, respectively: English, French, German, Spanish, Polish, and Italian) dominate, although there are important differences within this group of six languages and language areas. The major portals and the most important reviews, the few commercial publications, publishers, and e-lit collections, and almost every competition takes place in these languages. The main positive anomalies outside this sphere are easy to list: Slovenia (close ties between electronic literature and new media art); Portugal (one major review); Norway (one competition and regional portal); and Finland (one major international portal and several translated works of electronic literature).

All in all, the summary of the e-lit scene in Europe looks somewhat like this:

- Collections. France (in 2004) and Germany/Switzerland (in 1999).
- *International/multilingual competitions*. France (2009; 2011), Spain (2005–2008; on hold).
- National/monolingual competitions. Germany (several from 1996; most of them discontinued); Austria; Poland (one, monthly; 2010– preset); Italy (one, 2003–2007; discontinued); Norway (one, 2005; discontinued).
- *Commercial publications/publishers*. France, Germany/Switzerland (1999–2004), Italy, Poland.

- Offline reviews. France (alire, 1989–present).
- Online reviews. France, Portugal, Poland.
- *Major international/multilingual portals*. Spain (Hermeneia), Finland (Nokturno).
- *Major regional/monolingual portals*. Germany (netzliteratur.net), Switzerland (cyberfiction.ch), Spain (The Spanish Hyperfiction Directory), Norway (Elinor), Denmark (Afsnit P).
- *Major national portals*. France, Spain, Poland, Italy (in progress).
- Offline exhibition series. p0es1s (Germany/Brazil; 1992–present).
- Online art venues. p0es1s.
- Literary groups. L.A.I.R.E (France), Transitoire Observable (France), ALAMO (France), Perfokarta (Poland), Infolipo (Switzerland).

PRELIMINARY CONCLUSIONS

There are five main characteristics of e-lit publishing and distribution in Europe. First, with very few exceptions, it does not constitute a commercial, but instead constitutes a community-centered activity. Second, most e-lit that satisfies the criteria used in this survey is freely accessible or downloadable on the Internet. Third, as electronic literature is often seen, it also situates itself in the continuum of twentieth century experimental and avant-garde literature, it is (and stays) culturally in the margins of more mainstream literary practices or even completely separated from them. Fourth, so far, the ongoing technological changes in the commercial publishing world—including, for example, the competition among publishers, teleoperators, bookstores, and hardware and software manufactures over the digital marketing and distribution channels of literature (e.g. portable reading devices such as Kindle and tablet computers such as iPad) do not seem to be closing the gap between electronic literature and mainstream literary practices. Fifth, institutionally various e-lit communities are supported by or intertwined with, if anything, either the academic (creative writing programs, scholar-authors, presentations at conferences, etc.) or the art world (museums and galleries that may or may not get public funding).

All five of these factors deserve a closer look, as each of them has ongoing consequences and constrains possible practices and networked structures in the field. The lack of commercial publications and publishers effectively decentralizes the scene and leaves e-lit authors with three basic types of publication pos-

sibilities: self-publication, publication in portals if such structures exist (in many ways and cases, this is just a form of networked self-publication), and publication in e-lit journals.

Two additional options are only available to some authors. Museums and galleries naturally prefer works that are as much literature as visual arts (text-based installations, textual sculptures, kinetic and holographic works, or digital multimedia). Publications in e-lit collections, such as the two existing ELO ones in the US, seem to be something that may happen in major European languages later in this decade. To a high degree, the publication opportunities and channels depend on the quantitative aspects of the local scenes. Quite simply, in countries with just a few practitioners there's no chance to go beyond portals and self-publications unless one is able and willing to start writing and publishing in some major European or global language (this is a trend clearly visible in e-poetry, for obvious reasons). Journals and competitions require a constant and sufficiently substantial e-lit production to support them, most probably in more than just one digital genre, but, even then, both competitions and journals tend to be relatively short-lived projects.

Very early in this survey, it became evident that electronic literature is not a market-driven literary phenomenon, but a community-driven scene with an accompanying set of aesthetic, social, and cultural values and practices. It is far from being an OuLiPo-inspired world literature as described by some commentators (Tabbi 2010), because there are several traditions from which it emerged, and these traditions in themselves go much further than the usual emphasis on twentieth century avant-garde movements (as its predecessors) acknowledges (Aarseth 1997; Bouchardon 2011).

On the other hand, if avant-garde is defined in terms of cultural opposition, then the combination of freely distributed electronic literature and technologically savvy, skill-based e-lit communities running on cooperation and peer recognition perfectly match the excessive demands of the definition. Although e-lit is isolated from most of the trends and concerns of mainstream publishing industries, it is close to and sometimes almost inseparable from other literary avant-gardes using the variety of non-digital media. In this respect, its cultural position could be described as a hyper-niche (a niche within a niche). Quite ironically, this exemption from media attention and monetary exchange and the strong emphasis on aesthetic and social motivation may go a

long way to guarantee the creativity of these communities, especially as literary canons, editorial constraints, stable publishing structures, production and distribution costs, and copyright laws do not play a decisive or inhibiting role in most e-lit activities.

Having said this, it is clear that e-readers and tablet computers with their more or less developed multimedia capabilities constitute the first fully functional and commercially viable digital delivery channel for literature. This may seem inconsequential and trivial from the perspective of electronic literature professionals, and in many ways that is an accurate estimation. Still, it is possible that these e-lit devices and gadgets will result in establishing an expanded field of mainstream publishing practices and institutions—to take just one crucial example: Apple's App Store is not controlled by giant print publishing conglomerates—a field that suddenly includes ergodic multimedia as well. In the worst case scenario, the new battle lines are drawn between two kinds of professionals, us and the multitude of print authors and publishing conglomerates with a somewhat limited understanding of multimedia literature and ergodic variation.

Finally, it is useful to bear in mind that nothing is set in stone. The cyclic nature of the electronic literature scene (or scenes) and its social and aesthetic dimensions is one of the key findings of this survey. Some genres of e-literature, especially hypertext fiction, interactive fiction, or MUDs, seem to have active lifespans uncannily similar to most avant-garde movements (discounting the two long lived or still living exceptions, surrealism and the OuLiPo). Hypertext fiction seems to be well past its prime; in most countries covered in this survey, it existed either as self-publications by authors available at their websites and blogs or as well-archived past scenes available at online databases that in some cases date back to the late 1990s (such as the one hundred or so German hypertext fictions from the 1990s and early 2000s listed at cyberfiction.ch). Needless to say, no European equivalent of Eastgate was located (despite the short-lived success of Editions Cyberfiction).

This leaves us with electronic poetry and its many forms, genres, practices, and venues. The production numbers of e-poetry are on a level that is capable of supporting and justifying the existence of several reviews, journals, and both national and international competitions. It has a long and diverse history that merits collecting, some of its intermedial forms can be circulated and presented in

non-literary contexts, and, last but not least, e-poetry in this century constitutes a truly international scene of writing. In fact, one may even ask if there is electronic literature outside e-poetry anymore. And if there is nothing outside e-poetry, that may be good news, too. After all, poetry is poetry, culturally and institutionally defendable, supportable, and expandable as literature or art or both.

Still, it is too early to tell. The scene is changing and the complex local and global traditions and networks of electronic literature need and require further research. One could do a lot worse than to investigate the:

- diachronic and synchronic aspects of electronic literature genres and genre formations;
- electronic literary groups and their self-understanding;
- archiving and translation practices;
- sources of funding;
- publishing policies;
- market and community-driven scenes;
- connections between e-lit and print lit communities;
- quantitative and qualitative effects of population sizes; and
- available and emerging infrastructures and technologies.

In addition, one could investigate broader contextual issues in order to get a fuller view.

THE ORIGINAL RESEARCH PLAN

RAINE KOSKIMAA

In this individual project, an investigation into organized European electronic literature publication and distribution will be undertaken. This means that self-publication by authors will be excluded. However, the investigation will cover all other forms of publication and distribution, including:

- electronic literature magazines and portals online;
- electronic literature competitions;
- collections;
- online art sites including literary digital works; and
- offline presentations in galleries, museums, etc.

The investigation will begin with a systematic survey of the European publication fora. The initial data will be collected using the expertise within the research project (covering six European countries) and existing resources, such as ELiNor—Electronic Literature in Nordic Countries Portal, Hermeneia Research Network of Electronic and Innovative Literature located at the University of Barcelona, the contributors' network of the *Cybertext Yearbook*, and the ELO Literary Advisory Board. Based on this survey, a representative sample of cases will be selected for more thorough investigation. Through interviews with responsible publishers and editors, the following issues will be clarified:

- The beginning and history of the activity;
- institutional background and financing scheme;
- main forms of activity;
- publication criteria;
- intended audience; and
- collaboration networks.

Alongside the interviews, content analysis will be conducted on selected issues of the publications. As a result, a useful report on European electronic literature publication will be produced. The report will detail the main actors in the field and give a comprehensive view of the state of the art. The main innovations behind the most successful cases will be identified and, on this basis, the best practices will be identified and proposed.

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Email exchanges and interviews:

- Jean-Pierre Balpe (France)
- Pedro Barbosa (Portugal)
- Ambroise Barras (Switzerland)
- Simon Biggs (UK)
- Philippe Bootz (France)
- Laura Borrás (Spain/Catalunia)
- Serge Bouchardon (France, Belgium, Luxemburg)
- Patrick-Henri Burgaud (BeNeLux)
- Daniela Calisi (Italy)
- Philippe Castellin (France)
- Theodoros Chiotis (Greece)
- Eliza Deac (Romania)
- Dubravaka Djuric (Serbia)
- Maria Engberg (Sweden)
- Krystof Fenyvesi (Hungary)
- Jerome Fletcher (UK)
- Daniele Giampa (Bulgaria)
- Zuzana Husárová (Slovakia)
- Teemu Ikonen (Finland)
- Jesper Olsson (Sweden)
- Mariusz Pisarski (Poland)
- Vladimir Piskor (Czech Republic)
- Hans Rustad (Norway)
- Jörgen Schäfer (Germany and Austria)
- Janez Strehovec (Slovenia and Serbia)
- Eugenio Tisselli (Spain)

- Patricia Tomaszek (Germany, Austria and Swiss e-lit in German)
- Rui Torres (Portugal)
- Yra van Dijk (Netherlands)
- Piret Viires (Estonia)
- Katarina Vukovic (Croatia)
- Jaka Železnikar (Slovenia)

CREATIVITY AND INNOVATION IN PRACTICE

ETHNOGRAPHIES OF CO-CREATION AND COLLABORATION AS MODELS OF CREATIVITY

PENNY TRAVLOU

ETHNOGRAPHIC FIELDWORK REPORT: INTRODUCTION

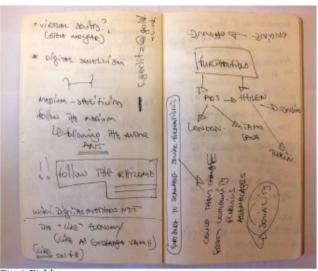


Fig. 1 Fieldnotes

The theme of my inquiry is how creative networked communities emerge in transnational and transcultural contexts, within a globalized and distributed communications environment. How do communities form and change through the collaborative activities of their members? How do members of these online communities come together to reinterpret and facilitate *creativity*?

I attempted to gain insights to these questions through ethnographic research with three creative communities that constitute and deploy themselves online and in physical space: Furtherfield, an artist-led online community and arts organization; Art is Open Source, the Italian artist duo of Salvatore Iaconesi and Oriana Persico, who develop ubiquitous publishing through cocreative practices; and Make-Shift, a cyberformance community represented by Helen Varley Jamieson and Paula Crutchlow. These three communities are closely interlinked. In fact, as I relate below, I happened upon the latter two

by following leads and lines of collaboration opened to me through my work within Furtherfield. Furtherfield was my principal host, my fieldwork home, and the community I spent the most time with and which I managed to observe most closely and longest.

For this reason, this report, the first to emerge from my ethnographic field-work and before I have had the opportunity to analyze and theoretically contextualize my field *evidence*, focuses almost exclusively on Furtherfield, with only passing reference to Art is Open Source and Make-Shift.

SOME NOTES ON THE ETHNOGRAPHY OF NETWORKED COMMUNITIES

NOTE 1. ETHNO+GRAPHY

My inquiry into the emergence of creativity through collaborative communities is ethnographic. Ethnography is "a decoding operation" (Apgar 1983), whereby the researcher expects to learn the verbal and symbolic language(s) and decipher the codes that underpin the existence of the community he/she sets out to *observe* from the inside. Ethnography, then, includes both the act of immersion in a community/culture and the methodological toolkit to facilitate decoding (e.g. participant observation, in-depth interviews with community members, etc.). Bate suggests that ethnography can be considered as a text that "drops the reader into the social setting, reveals the mundane and everyday, and delivers both a point and a punch line" (Bate quoted in Howard 2002, 213).

By enabling the researcher to observe first-hand interaction between community members within specific territories, and to probe the meanings of this interaction, ethnographic methods are particularly useful for capturing and decoding a community's symbolic language. This is congruent with the symbolic anthropologists' claim that communities result from "boundary construction through identity and shared systems of meaning" (Cohen quoted in Guimarães 2005, 146). Implicit in this understanding is the spatiality of any community. Ethnography, therefore, is a method not just for deciphering symbolic codes and meanings, but also for mapping territoriality and the physical presence of the community.

Schneider and Wright succinctly affirm that anthropology's main concern is experience: "not just in the sense of fieldwork, but also in the sense of understanding and representing the experience of others" (Schneider and Wright 2006,

16). "Experiment" (here in the sense of *experience*, as suggested by the term's etymology¹), Schneider and Wright argue, is a generative procedure whereby knowledge "emerges" (2010, 11). In the field, the ethnographer actively pursues a relationship with a particular site and its makers and users, participating in a culture. It is this experience of the site first hand and the participation in the daily practices, routines, and rituals that constitute it, that *may* justify the ethnographer's claim that he/she has made sense of the *site*, and his/her subsequent attempts to represent this site.

As any representation, ethnography is limited. Acknowledging the limits of the ethnographic project, anthropologist Edward Bruner suggests that ethnography is "one mode of representation" among many; any claims of truth attached to this endeavor are, hence, declined (1986, 16). "There are inevitable gaps between reality, experience, and expressions," he goes on to suggest; "our account does not fully encompass all that we thought and felt during that experience" (Bruner 1986, 7). Ethnography does not produce "an objective or truthful account of reality"; rather it is an interpretation of the "ethnographers' experiences of reality" (Pink 2000, 22). And yet, these limitations can also be benefits in disguise: it is by probing these seams, chasms even, between reality, experience and representation, that new modes of representation and novel interpretations of the *field*, and the ethnographer's experience within it, often emerge.

NOTE 2. CREATIVE LAND

This report is a first attempt to unravel the story of my ethnography at Furtherfield and to (begin to) give shape to the volume of field-notes and interview recordings compiled during fieldwork. As the word "text" (from the Latin *textus*: "to weave") implies, the making of the story—any story—closely resembles the process of *weaving*. By this I am not referring (only) to the grammatology and materiality of the document, its letters, sentences, paragraphs and pages put together, but to the multiple stories, voices, and geographies that writing weaves together in the knots of text-as-cloth (c.f. Ingold 2010).

It is, therefore, on purpose that, as it tries to retrace the lines of my fieldwork and their interconnections, this text eschews a linear progression. Instead it is more like a patchwork, where fragments of field notes and recorded voices,

^{1 &}lt; http://www.etymonline.com/index.php?term=experimental&allowed_in_frame=0">http://www.etymonline.com/index.php?term=experimental&allowed_in_frame=0>.

nodes where people and projects meet, are stitched together to make a cloth which, in turn, purports to represent a journey.

My ethnography is about a creative land, a landscape of places and people and things. It is about creativity as a synergy of spaces, practices, and artifacts, interlinked so that they form an assemblage (*sensu* Deleuze and Guattari 1987). Spaces are lived by bodies (human and non-human); practices are performed by bodies; artifacts are made by bodies. The connecting commonality here is, therefore, a community of bodies—people, buildings, machines, objects, and networks that construct this creative land through their interaction.

James Leach's (2003) suggestion that cultural practices of making new things can also "create individuals and bind them in social groups, 'creating' the community they inhabit" (after Biggs and Travlou 2012, online) is topical here. Agency and becoming are immanent within assemblages of things and people. In other words, agency and becoming are innate whenever things and people come together. The unfolding of creativity is, thus, understood as a property of relations, of communities, and is "emergent from, and innate to, the interactions of people" (Biggs and Travlou 2012, online). Tim Ingold (2008, online) describes this emergence of creativity as lines:

along which things continually come into being. Thus when I speak of the entanglement of things I mean this literally and precisely: not a network of connections but a meshwork of interwoven lines of growth and movement.

What kind of methodological framework could be congruent with this understanding of creativity as an emergent property of assemblages? How should I go about my fieldwork in a way that would accord with the dynamic and constantly shifting patterns of interconnection between the communities I was about to *study*?

NOTE 3: ON METHOD AND FIELDWORK PRACTICES

As already hinted, a review of the ethnographic literature suggested that the methodological approach appropriate to my study would be beyond the pale of "traditional" ethnography: I was about to study communities assembling between physical and online space(s), in "transnational" (beyond borders) and "transcultural" (hybrid) locations. Accordingly, my methodology was informed

by insights from "multi-sited global ethnography" (Marcus 1995; Burawoy 2000; Hendry 2003) and "online ethnography" (Ward 1999; Hine 2000; Carter 2005).

Global ethnography, or "globography" (Hendry 2003), aims to describe discourse amongst members of a creative community who communicate through new global forms of technology (e.g. the Internet) and exist (primarily) because of these forms of technology.

Online ethnography acknowledges the peculiar characteristics of virtual communities: communities which exist only if their members perceive them to exist (Hine 2000) and, I would add, will them to exist. The boundaries of virtual communities tend to be fluid, changing according to the ways their participants define them. In virtual networks the ethos of community appears more important than a sense of place. Such communities can be based around common interests rather than shared geographic territories. Identity is not entirely a function of location. Online ethnography, therefore, recognizes that community members have the lead role in establishing the reality, status, principles, and boundaries of their community.

FIELD PRACTICES

Guided by insights from global and online ethnographic approaches, the fieldwork program included both on- and offline interviews with members of three networked communities (Furtherfield, Art is Open Source, and Make-shift) and participant observation with all three communities, in both virtual and the real space.

Overall, fieldwork at Furtherfield, the core host community, which also provided the theme for this report, lasted for twenty-one months, from January 2011 to October 2012. This fieldwork consisted of:

- 1. four months (February–June 2011) of *in situ* fieldwork at Furtherfield Gallery (HTTP) in Manor House, North London;
- shorter field visits to events, exhibitions, and workshops organized in the old (Manor House) and new (Finsbury Park) Furtherfield galleries;
- systematic online monitoring of the Furtherfield website for new entries (e.g. exhibition reviews, commentaries, workshops/exhibitions/ events' promotional material);

- 4. participation in online exhibitions and events (e.g. cyberformances) organized by Furtherfield in partnership with other arts groups and communities; and
- 5. online fieldwork on NetBehaviour (Furtherfield's open email list community), from February 2011 to March 2012, with collection of over 8,000 emails.

Throughout the time of the *in situ* fieldwork, I visited Furtherfield Gallery every fortnight for a few days each time. During these visits, I spent time at the office to get to know my hosts and immerse myself in the setting, situations, and activities. Quite often, I was invited into discussions and meetings and was asked to assist in the organization of events and exhibitions. I was also invited to attend various events and activities with the Furtherfield crew outside the gallery. For instance, Marc Garrett, Furtherfield's cofounder, invited me to attend a number of his radio shows on Resonance FM. Ruth Catlow, Furtherfield's other cofounder, invited me to Writtle College of Design in studio crit sessions with her students.

My stay at Furtherfield also enabled me to carry out a series of interviews with key Furtherfield members and to video-record meetings, activities, and events.

These fieldwork practices were planned according to a modified version of George Marcus's (1995) six-stage approach to multi-sited ethnography:

- 1. follow the community;
- 2. follow the artifact (in this case electronic literature, performances, installations);
- 3. follow the metaphor (signs, symbols, and metaphors that guide the ethnography);
- 4. follow the story/narrative (comparison of stories with fieldwork notes from observation);
- 5. follow the life/biography (gather individual stories/experiences); and
- 6. follow the conflict (in this case, between transnational communities, e.g. in relation with copyright laws).

Furtherfield and the other communities that hosted my research emerge through non-hierarchical, multi-voiced, co-creative practices, where knowledge and creativity are shared—and, in the process of sharing, multiplied—across members and groups. As I explain below, the topology of these networked communities is rhizomatic. In acknowledgement of this, I extended Marcus's (1995) six-stage scheme with an additional seventh stage:

7. follow the rhizome.

NOTE 4. RHIZOME

A rhizome has no beginning or end; it is always in the middle, between things, interbeing, intermezzo. (Deleuze and Guattari 1987, 25)

As defined by Deleuze and Guattari (1987), the rhizome is characterized by heterogeneity, multiplicity, disjunction, difference, multiple entry points, and routes rather than roots. It does not respect borders; it generates many connections between ideas, things, people, and places and creates spaces where the "unexpected can occur, where change and transition are not only possible but necessary" (Graffland 1999, 3).

By opening up an infinite number of entry points and by blurring the boundaries between ideological, scientific, and philosophical modes of thinking, the concept of the rhizome promotes an interdisciplinary epistemology and invites an understanding of methodology as lived experience.

My following of the rhizome has been a succession of detours: I would start by following one line, and then another would appear and cause me to divert. At first, these diversions made me quite apprehensive. With time, I realized that they allowed me to map out, as it were, a larger part of the rhizomatic network I was studying—a network of formidable dimensions, which, as it was becoming increasingly more apparent, extended well beyond the few case studies of my research. While at Futherfield Gallery, for instance, I met Salvatore and Oriana of Art is Open Source (AOS) and then went on a mission to spread the word about their project, Roma Europa Fake Factory (REFF), for which they were organizing workshops at different universities across London (University of Westminster, South Bank University, etc.) and across autonomous social spaces (e.g. the Really Free School occupation at the Black Horse Pub). This serendipitous meeting led the original line of my study (Furtherfield) to branch out into a second line (AOS), which in turn, and as I pursued it further, branched into further lines, intersecting and intertwining: routes that topologically resembled roots, the rhizome, dynamic, evolving, changing, and self-constituting over time.

NOTE 5. NOMADIC MOVEMENT

Lines, paths, and rhizomes entail movement. Tim Ingold, in his text "Against Space: Place, Movement, Knowledge," suggests that we should look at places as "knots where the threads from which they are tied are lines of wayfaring." Lines trail beyond the knot "only to become caught up with other lines in other places" (2011, 149). For Ingold, places are becoming through movement along paths, lines connecting place A and place B. Intriguingly, when a "person moves he becomes a line," and as "the wayfarer is constantly on the move [...] he is the movement" (Ingold 2011, 149–150).

For Hazan and Hertzog, ethnographic research is intrinsically nomadic. They argue that, "besides being a major focus for research in the anthropological tradition, nomadism is a state of mind central to the understanding of the ethnographic enterprise" (Hazan and Hertzog 2012, 1). Ethnographers, like nomads, are in a continual adaptation to an incessantly changing world, which requires them:

to be physically mobile, mentally alert, emotionally resilient and socially agile; [they] must be prepared to modify and revise [their] theoretical standpoint time and again; and [they] must cope with the frequent unpredictable mutations in the articles of faith as to the desirable management of anthropological knowledge. (Hazan and Hertzog 2012, 1)

These insights have helped me to contextualize the state of wayfaring within the meshwork of lines connecting the places and people of this project. The communities/collectives/networks I worked with were constantly on the move, along paths that I had just begun to follow and whose complexity and mutability I had just begun to appreciate. As I was following and participating in the constant re-making of the rhizome, the communities were all lines and movement. Their movement was fluid, haphazard, and nomadic: from London to Cava de' Tirreni, from there to Turin, and, later, (after my fieldwork had officially ended and as the rhizome continued to grow) to Rome.

NOTE 6. SERENDIPITY

As already hinted, serendipity, chance, and happenstance have had a major role in shaping the directions of this journey. My initial expectation, at the start of my ethnographic fieldwork, was that I was about to embark on a study of networked *online* communities. In many ways this did happen: online communities consti-

tuted a major focus of my research. Already in the first few weeks in the field, however, I realized that this study would take me on a journey across an intriguing, *physical*-cum-*virtual* landscape, shaped by fabric-like topologies, "a meshwork of interwoven lines of growth and movement" (Ingold 2008, online).

As anthropologist Dona Davis (2007, 3) succinctly puts it, "the field is not lab." If scientific research is largely about hypothesis testing and prediction, ethnographic fieldwork, no matter how sophisticated the research design, is about happenstance and chance: "Much that emerges as desirable or worthwhile in fieldwork is unsought, unanticipated or not predicted" (Davis 2007, 3). Hazan and Hertzog (2012, 2) also emphasize that ethnographic research, as an inescapably nomadic "evidence-based form of creating and applying novel explanations to new observations," relies on serendipity and discovery.

These remarks accord perfectly with my experience of serendipity and what Hazan and Hertzog (2012, 2) term "the nomadic force" as a crucial shaper of this study, constantly challenging me to reinvent fieldwork practices and research methods and theoretical orientations, driving me from "one idea to another, transcend[ing] boundaries, shift[ing] involvements and transform[ing] commitments until it is finally arrested and shaped in the published text."

Nomadic by nature and subject to chance and happenstance, ethnographic research cannot be bound by prescribed formulae of *writing culture* (ethnography); even if we begin fieldwork with such a formula in mind, much of our ethnographic research remains uncontainable and evading.

NOTE 7. SCULPTURAL WRITING

As Michael Herzfeld remarked in his talk at the Annual Meeting of the American Anthropological Association in November 2012, "while we all recognize the serendipity of fieldwork, virtually no one has recognized the serendipity of the writing process." Herzfeld asks us to look at ethnographic writing as a craft that we learn to master through trials, faults, and happenstance.

Ethnographic writing is sculptural; it becomes through making. Herzfeld sees this as a "realist sculpture—not a socialist realism with its intolerance of anything 'unscientific,' but a more eclectic variety, one that actually tries to represent a cultural and social milieu with some semblance of accuracy."

In view of the preceding notes, the challenge in my own ethnographic writing is to make a (written) sculpture that represents a bewildering entangle-

ment of lines. If I were a sculptor developing my work in physical space, the question facing me would probably be one of shape and the deployment of this shape in space. In the case of a piece of writing that strives to represent a meshwork of lines—multiple stories, voices, loci—the question is again one of shape: the shape that emerges from the (re-) arrangement of these lines traced in the (somewhat inchoate) narrative of ethnographic *fieldnotes* at Furtherfield—from handwritten records of *in situ* fieldwork, short field visits and online cyberformances, to interview transcripts, video transcripts, promotional material, website information, and online discussions—and memory.

FURTHERFIELD

A BEGINNING

Looking back at my fieldnotes, the first thing that strikes me is that my ethnography seems to have not a single, but several beginnings.

Each (potential) beginning of my ethnography depends on how I re-interpret—*a posteriori*—the consequences of some events that constituted the early phases of my fieldwork:

I could argue that it all started with a talk I gave in 2009 on previous ethnographic research. My colleague Simon Biggs attended the talk and after its end asked me if I would be interested in collaborating on a new project for which he was applying for funding.

Then, there is the actual start date of the ELMCIP project (June 2010), with fieldwork commencing in July 2010. At that point, Simon Biggs, who had become my key informant, suggested a number of candidate network communities for me to work with: Furtherfield, ELO (Electronic Literature Organization), and Interactive Fiction.

Each of these organizations/communities/projects is a line in the meshwork of my ethnography. Some of these started as single lines and then progressed, intersected, and entwined with others, and from that entwining other, new lines appeared. Others were never to develop.

As this ethnographic research is linked with the ELMCIP project, ELO and Interactive Fiction were the first two groups that we considered as possible *case studies* (a term whose positivist undertones are not entirely congruent with ethnography). As our preliminary discussions progressed, however, the focus of

the project shifted from electronic literature to network communities of mainly digital artists and practitioners.

These discussions, false starts, and reconsiderations led me to Further-field. Furtherfield became, then, the starting point of my ethnography and the space where I was to return again and again during the months of fieldwork. Like a family, it provided me with shelter, guidance, and comfort as I was striving to familiarize myself with a new culture and language. At the beginning of my fieldwork, I was almost a complete novice, bewildered by the theories, practices, and semantics of digital arts and technologies. The few months of fieldwork were, thus, spent in a process of learning through trial and error, sometimes lost in translation.

"WE ARE A FAMILY"



Fig. 2 HTTP Entrance/metal door

I met the Furtherfield community on the 9th of February 2011, a warm and sunny day for that time of the year, at the very start of my fieldwork at Furtherfield Gallery (formerly known as HTTP—House of Technologically Termed Praxis), which at that time was located in Manor House, in a North London industrial estate. The place was not easy to reach: it took a fifteen-minute walk

from the nearest tube station towards a rather residential area. When I arrived at the gallery premises, I had trouble locating an entrance. I had to knock on a metal door and hope that people would hear me and let me in.

Reflecting back on that day of my first (physical) encounter with Further-field, I was very intrigued by the seemingly obscure, almost secretive aspect of its physical location, which contrasted with the very strong presence of the online community on NetBehaviour. Knowing that Furtherfield's online community consists of 26,000 users and that Furtherfield Gallery has more than 800 supporters, I expected that the space that houses Furtherfield would be conspicuous and large enough to accommodate its many activities. I was, thus, quite unprepared for the compactness of the actual premises.

Another striking aspect was that Furtherfield's space seemed to defy classification: was it a gallery, an office, or a home? It juxtaposed and mingled all of these functions: the first room was clearly a gallery space; the second room was used as a meeting place and, also, as an extension of the gallery space; the third room was an open-plan office with some desks used by the more permanent staff and others used as hot desks. At the same space, there was a kitchen with a cooking area and a table used for both dining and meetings; a small back room where all unused and recycled computers and other related material were stored in what seemed to be a rather haphazard way; a bathroom, complete with bathtub, washing machine, and personal toiletries; a series of bookshelves on one of the walls, with a selection of books on digital arts, politics, and literature; and a low-ceiling mezzanine with a double bed, for the use of resident artists and guests.

Furtherfield Gallery was clearly a multi-functional space: a gallery, an office, and a house. The shift between these uses was smooth, almost fluid: I could easily see how the gallery room could be easily transformed into a private meeting space; how, in exhibition openings, the office and kitchen space could be transformed into gallery and social gathering space; how meetings could be hoisted around the dining table with not much ado; and so on.

CREATIVITY AND INNOVATION IN PRACTICE



Fig. 3 Office space



Fig. 5 Computer storage space



Fig. 6 The kitchen

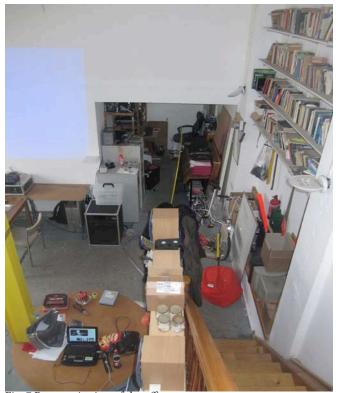


Fig. 7 Panoramic view of the office space

This multiple use of space, the homely juxtaposition of space functions, and the striking absence of clear boundaries between uses that are often kept separate in *professional* settings also reflected (indeed exemplified) the way Further-field functioned as an artists' community, organization, and family. As Salvatore Iaconesi from Art is Open Source (at that time resident artist at Furtherfield) remarked on one of my first dinners at the gallery, Marc and Ruth were the parents and all the rest of us were the adopted children, relatives, neighbors, and family friends. In a similar manner, Alessandra (Ale) Scapin, the Furtherfield program manager and project coordinator, in her interview, described Furtherfield as a family for her:

it's my work, but I would say it's a family [...] A family because it is not just a boss and employee relationship. It's more than that. You really want to make things happen. So you would give 100%. Everyone who comes here gives 100%. So yeah, I think it's a community, it's a family, and it's a way of thinking. (A. Scapin, pers. comm.)

As a family, Furtherfield is expanding, expansive, and mutable, always changing its number of and relations between its members: a rhizomic entity that is growing from and towards different directions, as new collaborations and



Fig. 4 Office space

friendships constantly emerge while others wither away. During my three-month fieldwork in the gallery there were the following:

- 1. two opening exhibitions;
- 2. a school initiative project, comprising a series of design projects at Writtle College;
- 3. projects delivered by other Furtherfield staff and members;
- 4. various conference talks by Marc and Ruth;
- 5. workshops and symposia at several universities;
- 6. Marc's weekly radio show at Resonance FM; and
- 7. the artist residency (Salvatore Iaconesi and Oriana Persico).

These activities, projects, and events brought formerly unrelated people, communities, and organizations together and initiated new partnerships, collaborations, and friendships. Browsing back through my fieldnotes, I see here and there names, email addresses, and weblinks scribbled down: some of these people have become friends on Facebook, and I keep following their online whereabouts; with some I even met in person at events (e.g. exhibition openings) that took place in the Gallery after the end of my fieldwork or on occasions separate from Furtherfield.

STARTING UP

We've been friends from '91 [...] but we were both attached. And then, we weren't attached, and then, we got married (Ruth Catlow, pers. comm.)

And then, Furtherfield started in '96, it was kind of about the same year when we kind of got started working on this together. And, basically, Marc was working in homeless centers running arts projects for ten years. And I was working as a fiddler in a Greek wedding band for ten years.

But we didn't have a gallery at that time. We just did everything online then. As we got ... we were a success ... we got some funding through the Lottery Fund for ... I think our first, serious funding for Furtherfield project was for online residencies, artists' online residencies, which was called Further Studio. I think that was in 2002.

We set the gallery then ... we opened our first show in 2004. Again, with

no funding. So, everything was kind of doing everything, you know, using whatever we could get hold of. And doing work in partnership with people. And then, in 2005, we got the funding. Really, if we hadn't got the funding, we were ... I think we were about to go down, actually, we were really close to this. Yeah.

Furtherfield as an idea, institution, organization, community, gallery, and set of projects is the brainchild of Marc Garrett and Ruth Catlow. Marc is a Net artist, curator, writer, street artist, activist, educationist, and musician,

emerging in the late 80s from the streets exploring creativity via agitart tactics. Using unofficial, experimental platforms such as the streets, pirate radio, net broadcasts, BBS systems, performance, intervention, events, pamphlets, warehouses, and gallery spaces. In the early nineties was co-sysop (systems operator) for a while with Heath Bunting for Cybercafe BBS.²

Ruth identifies herself as an artist, educator, and curator, with a background in sculpture.

Furtherfield, Marc's and Ruth's life-project, transformed from a vision to an actual space and community originally to accommodate the somewhat marginal digital arts scene of the 90s. When Marc and Ruth met in the early 90s, they both shared the same frustration with the art scene of the time, the YBAs (Young British Artists), and its blatant commodification. They felt that the YBAs were promoting a very uncritical and non-discursive kind of artwork, grounded in traditional conventions of artistic practice. The established art scene was becoming exclusionary, confined within the boundaries of the artist studios. As Ruth says, "people wanted to keep their ideas to themselves and were quite protective of their ideas and their work. It suddenly wasn't about sharing ideas and building something together" (Catlow, pers. comm.).

It was this individualistic culture of the Brit Art scene that made Marc and Ruth look for alternative practices of communication, collaboration, and partnership with other artists and practitioners. They were uninterested in selling their artwork to "rich people and pristine galleries." Instead, they wanted to make things "for people with whom [they] would be interested in having a conversation with" (Catlow, pers. comm.).

^{2 &}lt; http://www.Furtherfield.org>...

At that time, Ruth started experimenting with the Internet and digital technologies as a way to expand her artistic practice as a sculptor. For her, the Internet became that "space that could be durational, something where there was no ambiguity about whether you were dealing with human beings or machines." This is when Marc and Ruth started making web pages for people whose work was not part of the mainstream Brit Art scene. Their web pages contained short reviews and documentation, which they then posted on early email lists such as *Rhizome* and *Nettime*. In Ruth's words, "suddenly, we were in a place that was really interested in discussing in a kind of a philosophical context the work we liked" (Catlow, pers. comm.). This was when the Furtherfield idea was born.

In Furtherfield's early days, besides writing their own reviews and documentation, Ruth and Marc invited other people to become reviewers on their weblog(s). In parallel to this, they began developing exhibitions and participatory projects. Their earliest project was "Day In—Day Out" (1999), something akin to a multi-blog project, in which they invited artists and musicians from around the world to contribute diary posts in the form of texts and images. With this material, they organized an exhibition soliciting the audience's responses to the diary posts. These responses were then posted online.

At the beginning, Marc and Ruth ran everything from home and only online. When they first got funding from the Lottery Fund in 2002, they set up online artist residencies, the FurtherStudio. That was also the time when they came up with the term "Furtherfield," to express their position as artists, curators, and educators: Furtherfield is something that goes beyond, even further than the mainstream (political, artistic, more broadly cultural) left.

THE WEBSITE

The (now defunct) Furtherfield website, which I first accessed in September 2010 before the start of my fieldwork, was my very first introduction to Furtherfield. That first encounter was rather overwhelming. The site was teeming with information: announcements and bulletins for events, exhibitions, workshops in London, the UK, and abroad, discussion forums, blogs, reviews, projects, and various other posts. I found that I was unable to make heads or tails of all this information to get a clear idea about what Furtherfield was exactly and what it stood for.

That old website was changed in early March 2011. Vincent Van Uffelen, the web developer who worked on the design of the new website, described the latter as:

a standard to more open source content management system. [...] The new website is more powerful, more flexible and it looks better. There's a lot of extension. It's a lot easier extension than the old system which was a custom-built system (Uffelen, pers. communication.)

This is how Furtherfield introduces its vision and mission on its website:

Vision

We believe that through creative and critical engagement with practices in art and technology people are inspired and enabled to become active co-creators of their cultures and societies.

We can make our own world—together!

Mission

Our mission is to co-create extraordinary art that connects with contemporary audiences providing innovative, engaging and inclusive digital and physical spaces for appreciating and participating in practices in art, technology and social change.³

On the current website, the information is classified in order and format almost identical to that of a wordpress blog. Posts are divided into:

- About (Furtherfield, gallery, contact, people, press, visit);
- Features (articles, interviews, reviews, Furtherfield blog);
- Programs (events, exhibitions, gallery, Media Art Ecology, outreach, projects, publications, radio, residencies);
- Get Involved (become a reviewer, create remix play, events/activities, join NetBehaviour, lexicon); and
- Community (user profiles, clear spots, community blog, calendar, common room, your art here).

The website also includes links to social networking sites such as Flickr, Facebook, and Twitter, where Furtherfield maintains accounts/pages.

^{3 &}lt; http://www.Furtherfield.org/about>.

The wealth of information on the website illustrates the diversity of the community and the strategic planning of the organization. It clarifies the role(s) of current grafters in the different projects and their relationships with neighbors and the wider (online and physical) community of Furtherfield. In these ways, it also reflects the dynamic character of Furtherfield, with new partnerships, collaborations, and activities constantly added to their program.

WE ARE PUBLIC: THE FURTHERFIELD GALLERY

HTTP (House of Technologically Termed Praxis), as the Furtherfield gallery was originally named, was London's first dedicated space for networked and new media art. Working with artists from around the world, HTTP provided a public venue for experimental approaches to exhibiting artworks simultaneously in physical and virtual space, and for online projects that explore participative and collaborative art practice. Artists' projects on DVD, real-time, webcast, software art, and live art have been included in the curatorial work of HTTP.

HTTP hosted its first exhibition in 2004 with no funding at all. Ruth recalls that, for that first exhibition, she and Marc did everything on their own "with a little work in partnership with people." Without funding, it would have been difficult for them to sustain the HTTP Gallery.

Nonetheless, setting up the gallery in the first place may have been instrumental for Furtherfield acquiring funding by the Arts Council of England, who supported "core costs and artistic programming and commissions" a year later. As Marc revealingly claimed:

Arts Council doesn't officially accept online cultures and art culture. They only set up the gallery. The only reason we get funded is because of the gallery. I mean not because of the rest of Furtherfield. (Garret, pers. comm.)

Regular funding from the Arts Council of England in 2005 and other public bodies a year later finally enabled Furtherfield to further develop its gallery space.

Furtherfield Gallery seeks to be a "dedicated space for media art"—providing a platform for "creating, viewing, discussing, and learning about experimental practices in art, technology, and social change." Like most other private

^{4 &}lt; < http://www.artscouncil.org.uk >.

^{5 &}lt; http://www.Furtherfield.org>.

art galleries, Furtherfield Gallery features a regularly changing exhibition program (which has attracted established new media artists, such as Annie Abrahams, Stanza, Susan Collins, Iacose, and Irrational.org.) and also hosts other events, such as concerts, performances, and readings.

Unlike commercial private galleries, however, Furtherfield functions as a non-profit artist-run space, aiming to "initiate and provide infrastructure for commissions, events, exhibitions, internships, networking, participatory projects, peer exchange, publishing, research, residencies, and workshops." Its purpose is to sustain the potential for a more open relationship between artists and audiences through experimentation with contemporary digital networks and social media: "This can radically change the life of the artwork in the world and the ways in which people come across it and sometimes collaborate in its creation." These activities rarely appear in the mission statements of private galleries and, indeed, many public museums and galleries. Furthefield's clear commitment to and prioritization of collective and public activities of community engagement is among its defining characteristics.

RESIDENCIES

Until recently, the gallery space was also used for *in situ* artist residencies which formed part of Furtherfield's program.8 In the words of Furtherfield's website, these national and international residencies "offer a productive and dynamic environment to produce work and develop practices in art, technology and social change."

Residencies usually lasted between one week and three months. Each residency's duration and aims were negotiable. The residency cost was £400/month for individual artists and £600/month for institutional bodies; individual artists were encouraged to apply for bursaries. Furtherfield provided resident artists with in-house technical support, studio facilities, Internet access, equipment, and exhibition space.

^{6 &}lt; http://www.Furtherfield.org>.

^{7 &}lt; http://www.Furtherfield.org/programmes/exhibitions > ...

⁸ Since the move to the new gallery space in Finsbury Park, however, the Furtherfield Residencies program has been discontinued due to space limitations. There are discussions to open a new labspace in partnership with Drake Music in summer 2013; this space will also be used for artist residencies.

^{9 &}lt;a href="http://www.Furtherfield.org/programmes/residencies">http://www.Furtherfield.org/programmes/residencies.

Artists who undertook a residency at Furtherfield were invited to present their work to the wider Furtherfield community through online platforms and public events at Furtherfield Gallery. Work created during each residency was included in the Furtherfield Gallery exhibition program. Among the resident artists were Helen Varley Jamieson, Annie Abrahams, Danja Vasiliev, Mary Flanagan, Richard Wright, and AOS.

Part of my time at Furtherfield coincided with the residency of Art is Open Source (Salvatore Iaconesi and Oriana Persico, also known as AOS), which gave me the opportunity to witness firsthand how the residency program worked. Salvatore and Oriana stayed at Furtherfield Gallery in Manor House for a month (February 2011). During their four-week residency, Salvatore and Oriana worked on the development of their project "REFF (Roma Europa Fake Factory): the invasion of ordinary reality to reinvent a new one using a fake institution, a book, an urban performance, and an augmented reality drug." Their residency resulted in a final exhibition, REFF: Remix the World! Reinvent Reality!, showcasing a live, glitch performance, an urban intervention, and a virtual entity by artists featured in the new REFF book. Artists included Garrett Lynch (Ireland), Rebar Group (US), and X-name (Italy), alongside a real-time interactive map that described the life of REFF all over the world, with sixty authors, artists, designers, architects, hackers, journalists, and activists performing various actions: a real-time stream of information produced collectively by a worldwide community of re-inventors.

In the three weeks prior to the exhibition opening, AOS ran workshops with students from different universities in London on the use of the augmented reality application AOS had developed. The students' interventions formed part of the urban performances which populated the gallery during the four-week exhibition.

THE NEW GALLERY

Most of my field time at Furtherfield was spent in the gallery space, which also functioned as an office space. I kept visiting the gallery even after the end of my fieldwork time there. These visits reinforced my impression that the gallery was Furtherfield's hub, a social space for gathering, reaffirming, and strengthening relationships and expanding the community.

The Furtherfield Gallery (*cum* office) was quite far off the center of London and not that easily accessible by public transport. Furtherfield members thought that—although as a space the Manor House gallery was ideal—the lo-

cation was not convenient for a number of people who wanted to visit it during exhibitions. There was also an ongoing concern about how the gallery failed to connect with its local neighborhood and community groups in Manor House and the nearby boroughs.

When Furtherfield acquired new funding from the Arts Council in spring 2011, they started discussing the prospects for moving the gallery to a new location. As Marc informed me, an increase of the monthly rent by the private owner of the building made the option of moving to a new place even more attractive. They entered in negotiations with Haringey Council to use the McKenzie Pavilion at Finsbury Park. Marc and Ruth were also moving out from their Green Lane flat to the countryside. A plan was thus formulated to use part of their flat in Haringey as office space, while the new rented space would be used exclusively as a gallery.





Fig. 9 Furtherfield Gallery sign, McKenzie Pavilion

In early January 2012, Furtherfield Gallery moved to the McKenzie Pavilion, at the very center of Finsbury Park, next to the adventure playground and the boating pond, near the park's café and the athletics track. The McKenzie Pavilion was offered by the Haringey Council free of rent for the first eighteen months on condition that Furtherfield will facilitate educational projects with the local communities and enable "many more local people [...] to enjoy this fascinating field of contemporary art and get involved with their projects" (Elena Pippou from the Haringey Council, pers. comm.). The high expectations from this new gallery space in heart of London's urban fabric are recorded in the Furtherfield website:

With this exciting move to a more public space Furtherfield invites artists and techies—amateurs, professionals, celebrated stars and private enthusiasts—to engage with local and global, everyday and epic themes in a process of imaginative exchange.¹⁰

The pavilion space is much smaller than the gallery-cum-office at the previous location. It comprises two rooms, with a kitchenette and some storage space. Ale is the only one with a permanent office space, while the other Furtherfield members use hot desks.

The Furtherfield collective have tried to address this by integrating the pavilion with a more extensive assemblage of interconnected—by use as well as by

^{10 &}lt; http://www.Furtherfield.org/programmes/exhibition/being-social>.

geographical proximity—spaces: the gallery is contained by, complemented and connected with, the nearby park, the common room, and the Internet. The park, for instance, is described as Furtherfield's "context and inspiration," with its "richly connected diversity of people, creatures, plants, activities, enthusiasms" alive within it.¹¹

While the gallery is used to display exhibitions of selected contemporary artwork that address technology and social change, the common room is for displaying work contributed by open call in response to exhibition themes, and curated with local people. A further aim of the common room is to act as the base for a series of free activities for local schools and visitors to the park.

Finally, the Internet is utilized to connect local users to an international network of people who work on/are interested in technology and social change. It provides a place for people to share their artworks, proposals, ideas, and commentaries. It also provides access to further information about Furtherfield exhibitions, including downloadable catalogs and essays, programs of free events and activities, and a living archive of all past work.

Furtherfield will exhibit the best of contemporary work in art, technology and social change in a truly "public" space, developed with and for local residents and users of the park, and wider participants and audiences. Ultimately, we are looking for ways for local people and visitors to the park and from further afield to use this art space imaginatively together and to connect with our international community of artists, designers, thinkers, and technologists. ¹²

When I visited "Being Social," the opening exhibition at Furtherfield Gallery in Finsbury Park on February 25, 2012, I met a number of people I knew from events and exhibitions at the former gallery. There were also people whom I had never met before in person, but I knew through NetBehaviour. Marc mentioned that by the end of the opening event, there were more than 300 visitors, including many people without *established* connections with the gallery or the event: mothers with toddlers from the nearby playground, dog walkers, families, and passerby. As he posted on his Facebook page, he was "very proud of the larger community we are part of "."

^{11 &}lt; http://www.Furtherfield.org/gallery/about>.

^{12 &}lt; http://www.Furtherfield.org/gallery/about>.

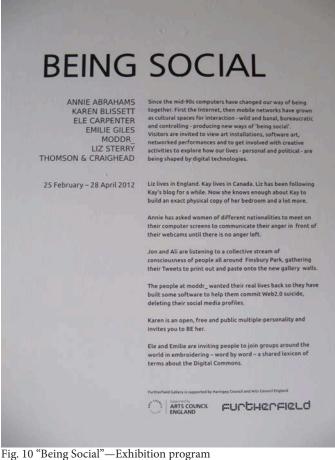




Fig. 11 "Being Social"—Exhibition events program



Fig. 12 "Being Social"—Exhibition opening



Fig. 13 "Being Social"—Exhibition opening

Since then, there have been a number of well-attended exhibitions and workshops, including events and activities for local communities and schools. Their plan is to:

- 1. host three exhibitions a year;
- 2. invite local schools and communities to respond to open calls for online artworks which will then be selected for display alongside those by artists of *international standing*;

3. and, organize free Saturday morning activities using technology and art. As Marc and Ruth stated on Haringey Community Online:

[u]ltimately, we are looking for ways for local people to use the space in a way that is imaginative and makes most sense to most people.¹³

The question of who constitutes the gallery's public is especially relevant to Furtherfield, as its new location at Finsbury Park opens it up to much more diverse potential audiences. Indeed, the themes of access and relevance to many and diverse potential users are recurrent in statements of vision for this new gallery space. Ruth describes this vision as follows:

We're looking forward to making what can be a quite tricky set of ideas and thoughts available to a much wider public. It's what we've always wanted to do, it really makes sense to us. It's great to be here! It's a truly public space.¹⁴

We would like people to feel welcome here and feel like this is a space for them where they can contribute and say something about them. We wanted the space to be accessible to a much wider group of people ("Being Social" at Furtherfield Gallery).¹⁵

Here are Marc's words from one of our informal chats:

We're kind of wanting something a little bit more grounded and something that can offer people social context and understanding beyond the individual alone. We are facilitating people to be creative by exploring different systems to reclaim culture in their own terms (M. Garret, pers. comm.).

The first workshop at the McKenzie Pavilion was the "Embroidered Digital Commons," a collectively stitched version of the "Concise Lexicon of/for the Digital Commons" by the Raqs Media Collective (2003) to coincide with the "Being Social" exhibition. The workshop, organized by Ele Carpenter and Emilie Giles, aimed to hand-embroider the whole lexicon, term by term, as a practical way of close-reading and discussing the text and its current meaning. It took place at the gallery on Saturday mornings for two months and involved embroi-

^{13 &}lt; http://www.harringayonline.com/forum/topics/digital-arts-collective-to-move-in-to-mckenzie-pavilion-finsbury->.

^{14 &}lt; http://www.labkultur.tv/en/blog/Furtherfield-virtual-physical>.

¹⁵ Being Social at Furtherfield Gallery < http://vimeo.com/39408401>.

dery sessions where gallery visitors came together to stitch the term *Meme*—an idea that spreads through social networks—chosen for its relation to the theme *Being Social*. The resulting patches were then turned into a short film depicting the sequence of embroideries.

Most of the workshops, however, have been centered around educational programs allowing children in North London to experiment with new technologies and digital media. Since early February 2013, Furtherfield Gallery has been running a series of "Scratch Workshops" with children between 6–9 and 9–12 years old. The Scratch Workshop is a child-focused programming environment where young participants can create and share their own interactive stories, games, music, and art. The workshops are in partnership with Codadesign, ¹⁶ wherein children learn to make a game or animation using the Scratch environment. On alternate Saturday mornings they have also been running the MaKey MaKey workshops, again in partnership with Codadesign. The MaKey MaKey is a kit that turns "anything into a controller." During the workshop, the children practice using computational thinking and interactive design in a variety of activities.

As the ambition of the workshops is to invite the wider local community to participate in activities in the McKenzie Pavilion, there has been a keen interest in forming new partnerships. At the time of writing, the latest event at the pavilion is a music hack day to create and share new instruments that break down disabling barriers to music making (April 21, 2013). The workshop will run in partnership with Music Hackspace and Drake Music, ¹⁷ and the music makers will have the opportunity to work towards one of two prizes for the most innovative work.

As Gawain Hewitt, the Drake Music associate musician and associate national manager, explained, "this event is the first of many, and allows us to collaborate with the widest range of talent in creating the most innovative tools for a sector that desperately needs them." ¹⁸

Ruth described the partnership with Drake Music as a good example of collaboration, sharing, and enriching knowledge exchange:

^{16 &}lt; http://learning.codadesign.com>.

¹⁷ Drake Music is a music and technology hub, founded in 1988 by Adele Drake with a national remit, and with regional bases in Bristol, Manchester and London. For over twenty years they have pioneered the use of assistive music technology to make music accessible and have developed a wealth of innovative and imaginative approaches to teaching, learning, and making music.

^{18 &}lt; http://www.furtherfield.org/programmes/event/hacking-make-music-accessible>.

What we brought to it [the music hack day workshop] was an understanding of social media and online communities. [What] we learned from them [Drake Music] was about accessibility, inclusion, and, really, how to work with people and how to make things available to people who are very different. That was always, from the start with Furtherfield, something that really fascinated us. The kind of fact that we could connect with people who were entirely different from us (Catlow, pers. comm.)."

These are just some of the workshops, events, and activities organized at the new gallery space in Finsbury Park since its opening in January 2012. The variety and richness of these events demonstrate the success of the new space as a *public* place, accessible to many more diverse people than before, and open to innovative collaborations and partnerships that engage the local community. This activity has not passed unnoticed: webmagazine LabKultur describes Furtherfield's new gallery space as the "People's Serpentine Gallery of North London," noting its accessible and open character.

WE ARE VIRTUAL: FURTHERSTUDIO, FURTHERNOISE, AND NETBEHAVIOUR

Before setting up the HTTP Gallery in 2005, Marc and Ruth had established other projects within Furtherfield such as NetBehaviour, FurtherNoise, and FurtherStudio. Each of these projects, Ruth explained,

rose up depending on enthusiasms that came up in conversations that we were having with people. And very soon, we had an idea about something that seemed to really make sense. Sometimes it was just a good combination of energies. FurtherStudio is an interesting one because Marc met Jess Loseby online, an artist who was making really lovely kind of work using the Internet to do digital work. She was in a wheelchair, living down South England with three kids. And very bright and very talented, but really unable to make it to conferences or festivals. Marc met her through Rhizome list and noticed that she was making very good posts and everyone's ignoring her. And what we thought would be interesting would be if we could make a window of her computer, so to create an online residency where people could log in, in real time to her computer and see what she was doing on her screen. And so that happened at the same time as with conversations we were having with Neil who is a programmer and also working with Rodger who is a musician. And things all came up together. Neil had a brain wave about how that could happen and then as we wrote that post, I thought "well, what's going to make that more interesting for people to log in and see what the

artist is doing?" But, what makes it more interesting is if they could talk to the artist and exchange stuff and if they can get their own hands dirty and produce things. And what a better way to do that than to do it with other people? And that's how FurtherStudio started. (Catlow, pers. comm.)

The FurtherStudio Artists in Residence program lasted for a year, 2003–2004. The idea behind the FurtherStudio program was to offer a landmark interactive tool that would enable audiences to watch and communicate with artists as the latter developed their work online, in real-time. The curatorial theme of the residency was "the appropriation and ownership of ideas, services, products and images" and the resident artists were Jess Loseby, Rich White, and replic**t.

Each online residency lasted for three months. In the first month the artists prepared and researched their projects and met with the FurtherStudio team of curators and programmers in order to set up the chat and forum facility and agree upon the residency events. The public program of real-time, open studio events commenced at the start of the second month.

The chat and critical forum facilities enabled artists, audiences and critics to discuss the artists' work in progress in a series of live, globally accessible interviews and critical debates. There was also a visitors' studio, designed for public participation and collaboration where the audience could experiment with the curatorial theme by uploading, mixing, and exhibiting their own works. Finally, at the end of each residency, were a series of critical forums with an invited panel.¹⁹

Resident artists and Furtherfield members alike remember FurtherStudio as a social area for the people who met through the online artist residency and "a way for people to explore and mess around with various files and see what it felt like to mix and remix." In Critical Forum 2, which marked the end of Jess Loseby's online residency, the artist described her experience at FurtherStudio as follows: "[F]utherfield gave me a free run from its pages & contributors ... so it was like running round a gallery with scissors."

FurtherNoise is a non-profit organization established in 1999 by Marc and Ruth as the sister site to Furtherfield: "an online platform for the creation, promotion, criticism and archiving of innovative cross-genre music and sound art

¹⁹ The transcripts from the forum discussions are available online on the FurtherStudio website (e.g. Critical Forum 2: http://www.Furtherfield.org/furtherstudio/docs/critical forum/critical discuss.htm).

for the information & interaction of the public and artists alike."²⁰ According to FurtherNoise mission statement, this non-profit organization

Encourages new methodologies and practices in creating adventurous music and sound that is not bound by the constraints of historically experimental genres. We showcase artists' work through critical reviews & features as well as organizing performances and events on the Internet as well as public venues and galleries.²¹

NetBehaviour is perhaps the most prominent of all pre-Furtherfield projects, still going strong and growing, with around 1,000 active members at the time of my fieldwork. NetBehaviour is "an open email list community engaged in the process of sharing and actively evolving critical approaches, methods, and ideas focused around contemporary networked media arts practice." The NetBehaviour site describes the list as follows:

NetBehaviour—is for networked media artists, researchers, academics, soft groups, writers, code geeks, curators, independent thinkers, activists, net sufis, non-nationalists, and net mutualists.

NetBehaviour—encourages individuals, small groups of mutual interest, and representatives of organizations to announce and promote their own projects and events on the list along with the exchange of related concepts/ideas/information/resources.

NetBehaviour—is a place where creative minds can share contemporary ideas and concepts, without either the censorship or endorsement of a centrally-imposed hierarchical canon, stunting their creative interests. All disputes are settled by all subscribers in the public forum of the email list.

We are the medium—the context—the source of networked creativity.²³

^{20 &}lt; http://www.furthernoise.org>.

^{21 &}lt; http://www.furthernoise.org >.

^{22 &}lt; http://www.netbehaviour.org>.

^{23 &}lt; http://www.netbehaviour.org>.

The last sentence illustrates very clearly the social and political context within which NetBehaviour²⁴ has evolved, that of people sharing knowledge and making *things* together. It "identifies individuals and communities as the determinants of mediality and situates the collective activity as the source of creativity" (Biggs and Travlou 2012).

NetBehaviour provided another major focus for my ethnographic fieldwork. For a year, from February 2011 to March 2012, I collected and archived all 8,751 emails sent to NetBehaviour by both regular members and non-regular contributors. Regular contributors included, among others, the current Furtherfield grafters, neighbors, and collaborators.

In that year, Marc, who also coordinated NetBehaviour, posted 1,541 messages; Ruth posted 521. Olga, who also assisted with the coordination of the mailing list, posted 102 messages under her name and 2,378 messages as "general info," the latter mostly in relation to announcements for exhibitions at Furthefield Gallery and other venues, workshops, conferences, residencies, competitions, awards, and newsletters. Other regular contributors included Alan Sondheim, an American poet, critic, musician, artist, and cyberspace theorist (1,541 messages); Rob Myers, Furtherfield Advisory Board member and regular reviewer (923); Micha Gardenas, a transgender performance and new media artist (797); Manik, a Russian digital artist, painter, and poet (717); Michael Szpakowski, one of Furtherfield's current grafters (467); Simon Biggs, a digital artist and academic (417); Helen Varley Jamieson, a cyberformer and former resident artist at Furtherfield (362); and Annie Abrahams, an Internet-based performer (157).

NetBehaviour is used in various ways, as a mailing list, online platform, and discussion forum. Collection and initial analysis of the message-traffic made it apparent that each contributor uses NetBehaviour for specific reasons. Manik, for instance, has been using it mainly as a platform for the distribution of drawings (such as the "Alive 1–64" series and "Workers Son First Toy"). Alan Sondheim, the most regular contributor, has been using NetBehaviour as both a social space to communicate ideas and debate various issues with the wider online community, and as a place to publicize his poetry. Many of his prose poems have appeared on NetBehaviour: "Monk, Why I Can't Sleep," "Darkness/Wandering," "Vicodin," "Alan and His Birthday Buddies." Evidently, for Sondheim, NetBehav-

²⁴ I return to NetBehaviour later in the report to give a more detailed account of the way it functions.

iour's online community is an important forum for communicating and sharing his creative work with peers, colleagues, and other practitioners/artists in his field.

In the year of my online monitoring, NetBehaviour hosted topics and discussions of a bewildering variety. Many posts were queries regarding specific software, technologies, coding, and technical issues. Others grew into discussions lasting for weeks, with many people responding and taking up the conversations from where others had left it.

Very often these discussions reverberated with political events that took place around the world. The Occupy Movement, for instance, was discussed extensively between NetBehaviour participants. Using the 2011–2012 protests as a paradigm of resistance against neoliberalism, Marc inquired whether—and how—we could develop similar resistance mechanisms within the art world. In another email thread entitled "Why I'm Not Visiting UC Davis in April," members critiqued the way the University of California Davis had handled the student protests in April 2012.

In our interviews and discussions, most current grafters, neighbors, and community members described NetBehaviour as a vibrant online community of a nature more open and accepting than other similar email lists. Helen Varley Jamieson, for instance, described how, while she felt discouraged by the way other online forums/communities operated as exclusive and expert-centered, she found NetBehaviour very open and welcoming. As a female artist, Helen did not feel very comfortable on other online forums where the discussions were coordinated mainly by male members. By contrast, she felt that she was part of the NetBehaviour community and that her contributions to discussions were well received.

Olga also discussed her experience as a member of various online lists, some of which (e.g. *Nettime*) she found too theoretical and lacking the "creative edge" of NetBehaviour. She found, though, the technical knowledge and language used by other more regular members on NetBehaviour quite difficult to comprehend and relate to. In her view, there was still a certain element of exclusivity which restricted knowledge sharing between NetBehaviour members.

Regardless of the different experiences that Helen and Olga may have had with NetBehaviour, they agreed on the crucial role of discussions in sustaining this online community. They both described in a positive manner how through

conversations members resolved issues, learned new skills, shared artistic practices, and attended online art projects and events.

Helen's and Olga's accounts corroborated Ruth's response to my question as to how NetBehaviour was sustained as community:

Through conversation. I mean, we're very discursive and bring joy. I mean, you'll know that, through NetBehaviour, the conversations are sometimes very serious and definitive and about making decisions about things together. But often they're playful and silly and kind of openended and they ramble on. It's like having the breadth of expression and exchange that you have when you sit down and you drink a cup of tea with somebody. Those are the kind of online spaces that we want to support and generate (Catlow, pers. comm.).

FURTHERFIELD: THE EXTENDED FAMILY

Furtherfield comprises a web of some 26,000 contributors, including international artists, theorists and activists, many of whom know one another only through the virtual connections established and mediated by network initiatives such as NetBehaviour.

Among them there are a number of people who have been involved with, and part of, the Furtherfield community since its early days. Neil Jenkins and Michael Szpakowski, both well-known UK-based Net artists have been active members of this community from its very beginning. Mez Breeze, the internationally renowned Australian code-poet and net-artist and a former member of 7-11 and Net-Time, is also a close associate.

The "Furtherfield Crew," as the closest collaborators are called on the organization's website, consists of four groups:

- 1. The Current Grafters are members who are actively involved in the management, administration, and organization of Furthefield and its various projects. The Current Grafters constitute, so to speak, the backbone of the organization. They are:
 - Ruth Catlow—Co-Founder and Co-Director
 - Marc Garrett—Co-Founder and Co-Director
 - Alessandra (Ale) Scapin—Producer and Coordinator
 - Charlotte Frost—Associate Context Editor
 - Olga Panades Massanet—Web Development Coordinator and Outreach Delivery
 - Rich White—Gallery Manager and Technician

- Michael Szpakowski—Outreach Delivery
- Rob Myers—Co-Editor
- Aileen Derieg—Blog Editor
- Roger Mills—Furthernoise Director and Editor
- 2. The Neighborhood Crew are people in the extended neighborhood of Furtherfield, with specialist input into projects and sister-sites:
 - Pete Gomes—Outreach Delivery (artist and film director)
 - Tom Keene—Outreach Delivery (media artist)
 - Neil Jenkins—Technical Director for Projects (artist, curator and programmer)
 - Corrado Morgana—Game Art Curator (researcher, media artist, curator, and electronic musician)
 - Vincent Van Uffelen—Web Developer (artist and digital craftsman)
- 3. The Advisory Board:
 - Mandy Berry—Joint Chief Executive, Golant
 - Rob Myers—Artist, Hacker, and Writer
 - Paul Squires—Managing Director, Perini
 - Joscelyn Upendran—CEO, lovle and Public Project Lead Creative Commons UK
 - Evelyn Wilson—Senior Manager, LCACE
 - Lauren A. Wright—Curator, Turner Contemporary
- 4. The Now-Sleeping Furtherfielders are people who, through their grafting, have at some time and in some way contributed to Furtherfield's current condition. These include:
 - Atty (Andy Forbes)—Programmer/Head Gardener
 - Stephanie Delcroix—Public Relations and Publicity (2006–07)
 - Adrian Eaton—Computer Programmer and Application Developer (2004–07)
 - Zara Hughes—Web Administrator and Technical Developer (2005–07)
 - Jade King—Administrator (2004–05)
 - Alessandra Marconi—Research Associate
 - Graziano Milano—Project Developer for VisitorsStudio (2005–07)

- Giles Pender—Office and Gallery Technician
- Daniel Perez—Web Developer
- U-Sun—Web Administrator Sysop (2005)
- Chardine Taylor-Stone—Marketing Officer
- Maria Yarjah—Technical Producer
- Mary Helen Young—Fundraising

Ruth explains the roles of the "Current Grafters" (or, otherwise, the "core family") as follows:

When we first got started everybody did everything. Now, we have more defined roles than we had. So Marc's main role is with the kind of editor, commissioning editor of reviews and interviews and articles and of informal marketing communications, but we don't call it that. Ale deals with all the administrative stuff, finance and reporting to any funders and various people that we work with. She's the coordinator of all those. She's also the program manager which means that her role is developing. She is now responsible for the kind of communications and coordination of what goes on in the gallery. She's the most important person, for God's sake (she laughs). My role I would suppose is to write business plans and the kind of strategic partnership development and the kind of long-term strategic role of the organization. Olga works on web development and outreach stuff. I am also involved in the outreach stuff; I've been driving that. (Catlow, pers. comm.)

When I asked why they use the term "neighborhood crew" to refer to close collaborators and partners in current projects, Ruth explained that their choice of words is deliberate. For Furtherfield members, there is neither a single *author* nor an autonomous artist: "We don't aspire to be an autonomous genius. We aspire to be neighborly; to see ourselves in relation to each other" (Catlow, pers. comm.). For this reason, they use words that define relations in real physical spaces like those of kinship and neighborhood, where people share, among other things, locality (a land, a home, a village). These words (and the relationships these imply) are also transposed on virtual space.

This understanding of creativity as an activity of exchange between multiple people and communities that can enable them (Biggs and Travlou 2012)—and the sharing of co-creative practices between grafters, neighbors and other people involved in the making of *artifacts*—constitutes Furthefield as an example of distributed authorship.

The Furtherfield community is not limited to these four groups and the individual collaborators listed above. During my fieldwork in the gallery, a number of interns, short-term contract employees and students were involved in various projects. Usually, the interns were graduates from undergraduate and postgraduate courses on digital media, creative industries and/or cultural management, from universities across London (i.e. Westminster, Birbeck, South Bank). They were at the gallery for short periods, to work on a specific project or to gain more general work experience. In most cases, their role would be linked to their expertise (e.g. photography, digital media).

Short-term contract employees were there for a few months at a time, depending on their specific role and the time-frame of the project they were involved in.

Finally, there were students whose projects focused specifically on Furtherfield and, therefore, spent time at the gallery to collect material and/or use its space for their project activities. Pollie Barden, a PhD student in Media and Arts Technology at the Queen Mary University of London, for instance, used the gallery for her *telematic dinner parties*—a series of set-up dinners between colocated groups in London and Spain.²⁵

HOUSEKEEPING AND HOME ECONOMICS

During my fieldwork, I had the chance to meet all the "current grafters," a large number of the "neighbors," some of the Advisory Board members, and very few of the "now-sleeping" Furtherfielders. Getting to know people in different roles within and around Furtherfield gave me something akin to a perspective view on the project.

When Simon Biggs first introduced me to Furtherfield, he described it as a (networked) community. This description was what drove my initial research objective: to look at the formation and sustenance of the Furtherfield *community*. As my fieldwork at Furtherfield Gallery (the former HTTP) was progressing, however, the semantics began to shift, expand and blur, as the people I was interacting with described Furtherfield not only as a *community* but also (or instead) as a *family* and an *organization*. The choice of term sometimes appeared to depend on the role and position of my interlocutor in the Furtherfield community/family/organization. Nonetheless, there were many instances when the same people

^{25 &}lt; http://www.paradesigns.com >.

would use these terms interchangeably, or would shift between these as the context of the conversation demanded.

For Marc Garrett, Furtherfield was a community more than anything else, but when he had to meet with funding bodies such as the Arts Council of England he had to describe it as an organization with specific aims, objectives, management, and administration. Through various discussions I had with Marc, it became obvious that he was not very comfortable with the way Arts Council England (ACE) and other funding bodies perceived digital arts and the remit of spaces such as Furtherfield Gallery; yet he knew that there was a certain language that he needed to use in order to have a chance of success with applications and funding proposals. Ruth, on the other hand, was more at ease with calling Furtherfield an organization when the situation demanded. To some extent, these different degrees of reluctance to make use of the *managerial* terminology of funders may reflect the a clear distinction in Marc's and Ruth's role(s) within Furtherfield: Marc was the one who took more responsibility in nurturing and maintaining community networks, while Ruth did more of the overseeing of project and funding applications and the organization of meetings with ACE and other funders. Marc was also quicker to become involved in discussions regarding the political ideas around Furtherfield and would not make a secret of his resentment towards funding bodies and the arts establishment in general.

Referring to Furtherfield, Ruth made a clear distinction between *community* and *organization*. Speaking about NetBehaviour, for example, she described the platform as a community of people: "We have a community; we have really an active discursive community. I think we have taken over the role of rhizome for instance, for discussion and this stuff." (Catlow, pers. comm.)

Discussing the way Furtherfield operates, on the other hand, she talked about it as an *organization*:

It reflects the kind of dynamics of the organization more. I think we've got better at representing a kind of clearer vision of what it is that we're about. We've got a bit better at developing partnerships and improving our sustainability and thinking strategically about things rather than on a really kind of tactical way. We're thinking with a longer view now. (Catlow, pers. comm.)

As an organization, Furtherfield operates under a strategic plan. Ruth has admitted, however, that formulating a definitive future plan not only is "tricky"

and "challenging," but can also contradict the ethos of the community. Reflecting on these tensions, she said:

As a requirement, as being an Arts Council funded organization, we have a business plan. Part of the business plan requires us to think five years in advance. It's a kind of ridiculous thing to have to do because everything is unstable at the moment and we may find that next year, we're £80,000 poorer than we are now. [...] It's quite difficult thing to describe precisely. But the underpinning of the thing that we know we want to achieve is to support the community that is developing its own sustainability. That's thinking about what kind of distributed network and community-focused ways of sharing and working together can sustain creativity, imagination, and contribute to material survival as well. (Catlow, pers. comm.)

My interpretation of Ruth's words is that Furtherfield is, at its core, a community and defines itself as such, but, faced with the funding bodies which have the power to decide its survival or demise, it has to use a different language, the language of an organization with a strategic plan. This linguistic flexibility is necessary to secure funding and sustain a partnership with ACE.

Other grafters and neighbors, such as Michael Szpakowski and Rob Myers, see Furtherield mainly as a community. In one of the Furtherfield Gallery openings, I had the chance to talk with Rob Myers, an artist, hacker, and writer, who had come all the away from Peterborough for the event. During our chat Rob stressed repeatedly how important Furtherfield is for people like him who are working in more remote areas and are not part of London's digital arts scene. Due to NetBehaviour, he can have access to numerous discussions relevant to his interests and be part of an online community which is largely free of internal hierarchies and in which one can reasonably expect to be respected and treated as equal. For Rob, then, the gallery is the physical-social space where he can meet other members of the Furtherfield community in person. It was in an earlier opening event at the gallery where he first met Marc, Ruth, and other Furtherfield members, some time after he had joined the NetBehaviour forum. Since then he has tried to visit most of the opening events, both as a way to support the community and also to socialize in person with people he meets with and talks to online. As a regular reviewer for Furtherfield's website, Rob contributes to the growth of Furtherfield as both a community and an organization.

On the other hand, for Ale Scapin, who works at Furtherfield as program manager and project coordinator, the distinction between organization and com-

munity was not as sharp. Describing her day-to-day job activities, Ale reflected on Furtherfield as follows:

I am a program manager which means it's like [...] overseeing all the programming that we do in the gallery space, as well as outside. I've been doing fundraising, I've been dealing with artists and, you know, sort of supporting them throughout the management of gallery exhibitions and events in general. I've been arranging events, so contacting artists, inviting them to work something at our space. So it's much more interesting in a way, because I'm much more involved in the actual running and ethos of the organization. In a way, I feel like I'm also much more involved in the community. (Scapin, pers. comm.)

Ale's position and role has shifted since she first joined Furtherfield. As she relates in the above quote, she is now "much more involved in the community." Nonetheless, her administrative role serves and sustains Furtherfield as an organization, as Ale described in another of our chats:

When I started here, I was a coordinator, which meant, like, assisting the directors Marc and Ruth as well as assisting Lauren, the assistant director, working on exhibitions, sort of, like, preparing the marketing and, basically, sending out and doing the mail out stuff. I was also in charge of finance—I mean anything to do with budgets, payment and invoices. So it was sort of an administrative job and then I was dealing with HR, so like contracts, all payroll issues. Then I started working four days a week. I started this in July last year [2010], so that has been less than a year now. I took over what Lauren was doing because, obviously, she left in March. I kept my admin job, but on top of that, I am now a program manager. (Scapin, pers. comm.)

Doing fieldwork at the gallery, which also operated as an office, gave me the opportunity to experience first-hand the way Furtherfield was functioning as an organization and a community. In the months that I visited the gallery, I was invited to attend a number of meetings. These meetings took place at the kitchen table, or in one of the front rooms that was part of the exhibition space, and were organized by Ale. They were usually held on Thursdays or Fridays, when both Ruth and Marc were at the gallery (the rest of the week Ruth was teaching at Writtle College of Design while Marc was between Birbeck College for his PhD and Resonance FM for his radio show on Wednesday evenings, besides managing of NetBehaviour and other online projects).

Although they felt quite informal, the meetings were very well planned, with set-up agendas and clear aims and objectives. Meetings usually took longer than originally planned.

One such meeting (February 11, 2011) was also attended by Salvatore Iaconesi and Oriana Persico from Art is Open Source, resident artists in February–March 2012. The meeting was about the organization of their forthcoming exhibition, REFF (Rome Europa Fake Factory). Usually Ruth chaired the meetings, but on that day she had to stay longer at Writtle College, so Ale chaired.



Fig. 14 Meeting with Oriana, Salvatore, Ale, and Mark about the REFF exhibition

All matters concerning the organization of the exhibition, from the way the different posters would be placed on the wall to the smallest logistical details, were discussed, and further actions were decided collectively. There were, of course, differences of opinion on certain issues and different ways of doing things. It soon became clear that Salvatore and Oriana preferred a more *organic* way of dealing with organizational issues, while Ale, Marc, and Ruth were focusing on specific details and clear organizational plans. At the end of the meeting, Ale mentioned that she had tried to keep the meeting as structured as possible. She wanted to ensure that she chaired the meeting in the same way that Ruth would have done. However, she also said that she would have preferred it if the discussion had developed organically instead of being so structured:

It is a process which is more creative, so that people could bring "on the table" more innovative ideas, whereas the more structured discussion is

a bit institutional and reminded her of the meetings she had at the Arts Council when she used to work there. (from fieldnotes, 11 February 2012).

I had a similar conversation with Ruth after another meeting with Salvatore and Oriana. By that time, I was more familiar with Furtherfield and how people worked there, so it was much easier to understand Ruth's observations of that meeting. The meeting was again about the organization of the REFF exhibition. Perhaps because it was the day before the opening and everyone was stressed with last minute preparations, there was some tension in the meeting. At some point, the discussion moved to the way certain posters should be printed out. Ruth and Ale were anxious that the posters were still not up to standard. On the other hand, Salvatore and Oriana were happy with the overall preparation of the exhibition. As Oriana pointed out, they felt that certain things should be left a bit "messy" (pers. comm.). By the time the meeting had finished, certain issues remained unresolved. Ruth was anxious that there would not be enough time to prepare everything for the opening. She acknowledged that Salvatore and Oriana had a different way of working than the one she was used to.



Fig. 15 Meeting with Ruth, Oriana, and Salvatore

These differences in working practices became more apparent the next day, on the opening of the REFF exhibition. On the one hand, the opening was very well organized, with all rooms set up for the exhibition; all displays installed at the right place; and exhibition program leaflets printed and distributed on time. On the other hand, Salvatore's and Oriana's performance, which was part of the opening event, was executed quite organically, relying a lot on improvisation and happenstance. There were things that did not go under plan: the Skype connection with their colleagues in Italy failed to work at the end, as it had not been checked beforehand. Ruth stepped in and apologized to the audience for that. She also asked me a few times if I felt that the opening seemed a bit unorganized. I got the distinct impression that the lack of clear planning in the opening performance made Ruth feel quite anxious. Later, on various occasions, Ruth would mention that particular meeting and the opening as an anecdote that exemplified different organizational practices.



Fig. 16 REFF Exhibition opening and performance

Through my observations of the day-to-day conduct of events and activities, Furtherfield's power structure became increasingly evident to me. This power structure had its most clear expression with regards to decision-making. All activities were, of course, discussed at a round table and everyone involved in each project had the opportunity to voice their views on planning and management. When disagreements emerged between partners, collaborators, and members of each project and activity, discussions could be exhaustive. On most

occasions, however, the final decisions were made by Ruth and Marc. Decisions were, therefore, influenced—and often shaped—by many people's ideas and suggestions but were made by the directors (Ruth and Marc).

Ale explained how important it is for her to know that there is not a topdown approach on decision-making, unlike, for example, in her previous job with the Arts Council England:

It is really important, just the fact that there is no position from where you say "OK, we're doing this, we tell you what to do or things I've done" and we sort of, like, give you a kind of doctrine. It's much more based on exchange, collaborations, and constant changes. Everyone's sort of, like, contributing to an idea. I mean to an idea for a project, but it's like, there is no hierarchy and I like that. [...] Well here, I like that kind that it's more like a community. It doesn't matter if I'm a coordinator or, you know, I'm a student and I know less than you. So everyone's got a different experience and I think everyone can contribute and give their own idea and sort of like add to the overall project, and I like that. I think that's why Furtherfield has been so successful in the years and that's why it's still such a huge community. (A. Scapin, pers. comm.)

This ethos of collaboration between people with different skills, expertise, backgrounds, and experience; of co-ownership of the project; and of authorship situated within the organization/community, has sustained since its Furtherfield early days. On various occasions, Marc stressed that Furtherfield is based on a heterarchical distribution of power, wherein every participant has a share in authorship and ownership of projects and activities. In an interview online, Marc referred to the ideology and operational practices of Furtherfield as follows:

We do not respect hierarchy in itself, we perceive ourselves to be working in a flexible heterarchy at Furtherfield. Our respect and relation to each other is based on our skills, ideas, shared values contributing to a larger set of adaptive visions.²⁶

FUTHERFIELD: A NOURISHING ENTITY—A COMMUNITY GARDEN

Olga Panades Massanet, the web development and outreach delivery coordinator, explicitly linked Furtherfield's non-hierarchical (or, in Marc's terms, heterarchical) character to its small, family-like scale of its community of regular workers.

^{26 &}lt; http://www.interviewingthecrisis.org >.

Furthermore, Olga likened Furtherfield to a community garden, collectively cultivated by its many contributors:

I still see the inner workings of Furtherfield as a community, because it is a very small sort of community. It's a small family and it is very much working on very flat hierarchies. So it is very much about fully participating in the organization, and other things, and all having responsibility, which I think it is very, very nice when you want to. And then, it's a much, much bigger community, where Furtherfield is a facilitator, or nourishing entity which puts the infrastructure to make it possible, and spices that a bit with ideas, with reviews, with events. So there is a marked filling into the list of [...] creative [...] movement, or within marked devices essential to the projects to make that community happen. So, yeah, there is a lot of gardening, community gardening. (O. P. Massanet, pers. comm.)

In Furtherfield's "community garden" people are free to plow the soil, plant their own seeds, and partake in the common harvest. Collaboration and reciprocity are key components in knowledge sharing, learning, and making.

In a discussion on "Creativity as Social Ontology" on Empyre, the Australian online community/listserv, Ruth introduced Furtherfield as an organization and community based on collaborative practice:

I am part of a larger context called Furtherfield, which is a collaboration. This means that myself and others explore together and share our imaginations, respecting each others' voices and contributions and skills accordingly. Each of us engages in pursuing our interests and passions within the loose framework of Furtherfield as a progressive media art organization. The way we work with each other reflects how we feel about the world we live in, and how we want to change it. As a group, we all agree that it is important to allow room for productive and contemporary social values. This influences the way we work with each other, and others. (21 July 2010)²⁷

As already mentioned, Furtherfield as a community expands in many different directions, depending on the core people involved in the various projects and the communities they collaborate with. The Furtherfield crew has been involved in a bewildering number of projects since the early 2000. Alongside artrelated projects, Furtherfield has developed many outreach activities with schools and local communities across London, as follows:

^{27 &}lt; http://lists.cofa.unsw.edu.au/pipermail/empyre/2010-July/003197>.

in different community settings with lots of different kinds of people—including young people, disabled people and homeless people—on projects that explore co-creative processes in a digitally connected world. Learning together people gain the skills to create films, games, performances, and their own knowledge—resources to articulate their own lives and create their own cultures.²⁸

DIWO: DO IT WITH OTHERS

Ruth's emphasis on working with others reflects one of Furtherfield's core values and ideologies: DIWO, the acronym for *Do-It-With-Others*. Ruth and Marc coined the term in 2006, to represent their involvement in a series of grass root explorations between artists instigating critically attuned, mutual engagements, with the goal of shifting curatorial and thematic power away from top-down initiatives into co-produced, networked artistic activities. DIWO has now become a current term, even utilized as a business model and wining the accolades and praises of none other than the *Harvard Business Review*: "[c]ollaboration creates community. Fearless sharing creates community" (Hagel III and Seely Brown 2010). Furtherfield's website describes DIWO as follows:

a contemporary way of collaborating and exploiting the advantages of living in the Internet age that connected with the many art worlds that diverge from the market of commoditized objects—a network enabled art practice, drawing on everyday experience of many connected, open and distributed creative beings.²⁹

For DIWO, collaborating with others is, thus paramount. Creative practices thrive in collaboration rather than competition.

Marc describes DIWO as "artistic co-creation" and a "decentralized method of peer empowerment." In Ruth's words, DIWO is:

like a progression from the DIY which was a kind of maverick, pioneers, like Internet pioneers, "we can do it ourselves" which was a kind of autonomy. For us, we really understood that the best things happen when we talk to people; when other people knew how to do things better than us. By having conversations and combining forces, we could really move

^{28 &}lt; http://www.Furtherfield.org/programmes/outreach>. Besides the gallery space, Furtherfield's outreach agenda was one of the key criteria for securing funding from the Arts Council.

^{29 &}lt;a href="http://www.Furtherfield.org/features/articles/diwo-do-it-others---no-ecology-without-social-ecology">http://www.Furtherfield.org/features/articles/diwo-do-it-others---no-ecology-without-social-ecology.

^{30 &}lt; http://www.seadnetwork.wordpress.com >.

things forward. (R. Catlow, pers. comm.)

DIWO requires openness, spaces where components from different sources meet, mix, crossover, and combine to build a hybrid experience. It challenges and renegotiates the respective power roles of artists and curators. It brings all actors to the fore: artists become co-curators; curators can also become co-creators. The *source* materials are open to all, to remix, re-edit, and redistribute, either within a particular DIWO event/longer-term project, or elsewhere. Significantly, the process is as important as the outcome: these mutually respective engagements constitute relationally aware peer enactments. According to Marc, DIWO "is a living art, exploiting contemporary forms of digital and physical networks as a mode of open *praxis*, as in the Greek word for doing, and as in, doing it with others."³¹

As Richard Sennett argues in his latest book *Together*, cooperation can be defined as "an exchange in which the participants benefit from the encounters. [...] The act of doing so is wrapped in the experience of mutual pleasure" (2012, 5). For this exchange to happen, however, certain skills (in the Aristotelian concept of skill, that of *techné*: the technique of making something happen by learning how to do it well) are needed. Pursuing Sennett's point further, DIWO can be considered as skilled cooperation, where the various participants in a project, event, and/or activity (learn how to) share ideas and authorship.

DIWO relies not only on skilled cooperation, but also on peer-to-peer (P2P) practices and Media Art Ecologies. Michel Bauwens, the founder and key spokesperson of P2P Foundation, defines peer-to-peer as:

a form of human network-based organization which rests upon the free participation of equipotent partners, engaged in the production of common resources, without recourse to monetary compensation as key motivating factor, and not organized according to hierarchical methods of command and control. It creates a Commons, rather than a market or a state, and relies on social relations to allocate resources rather than on pricing mechanisms or managerial commands.³²

This contemporary form of the commons (Yochai Benkler's (2006) "commons-led peer production" or as Michel Bauwens' "peer-to-peer") shares some

^{31 &}lt; http://www.seadnetwork.wordpress.com >.

^{32 &}lt; http://p2pfoundation.net/What_this_essay_is_about>.

crucial characteristics with the historical, pre-modern commons (notably, distributed and horizontal access). Unlike the pre-modern commons, however, the new commons is not (necessarily) located in physical space, and the projects that constitute it are not (necessarily) local in scale.

Projects emblematic of the peer-to-peer (P2P) process include the Free and Open Source Software (FOSS) and the Creative Commons movement. FOSS projects often include thousands of workers who cooperate on making a piece of software which is then made readily available as a form of digital commons (by contrast with proprietary software which seeks to control and restrict access to a good whose cost of reproduction is effectively zero). In addition to the software itself, the source code of the program is made available, enabling others to examine, explore, alter, and improve upon existing versions of FOSS.³³ Taffel (2013, online) describes P2P as follows: "Rather than relying on economies of scale, P2P postulates a system of self-production which could offer a functional alternative which would have notable positive social and ecological ramifications."

Furtherfield's ethos of co-creation, collaboration, and heterarchy is absolutely compatible with and further reinforces P2P practices. Wider participation of, and open access for those involved in events, activities, and projects are shaped and pursued, while private appropriation of commonly produced knowledge and art is discouraged quite emphatically. Furtherfield is also explicit in its support for open systems where multiple workers/authors/practitioners can create, write upon, publish, and share software and files. An article on P2P on Furtherfield's website goes by the title: "You can't steal a gift: Peer to Peer Politics." ³⁴

Although I cannot be sure that the reference to Marcel Mauss' (2001) study of the "Gift" is intentional, P2P practices provide some very interesting links with this anthropological tradition. Collaboration is fundamentally about giving and receiving—in this case knowledge of making things together. Voluntary cooperation, the core value of P2P, can, therefore, be regarded as part of the gift economy—learning and sharing mastery—which, within Furtherfield, is a much stronger motivator than money or extrinsic rewards.

³³ Popular examples of FOSS include Wordpress—now used to create most new websites, as it allows users with little technical coding ability to create complex and stylish participatory websites—the web browsers Firefox and Chrome, and the combination of Apache (web server software) and Linux (operating system), which together form the backend for most of the servers which host World Wide Web content.

^{34 &}lt; http://www.Furtherfield.org/netbehaviour/you-cant-steal-gift-peer-peer-politics>.

Since 2009, Furtherfield has also facilitated projects that explored the intersection of art, technology, and environmental issues. These projects focused on Media Art Ecologies, stimulating practice and debate on ecological themes.

Media Art Ecologies draw on the ideas and writings of American anarchist Murray Bookchin and British anthropologist Gregory Bateson. Bookchin (1991) interpreted the present human conditions as a fragile ecological state compounded with a social pathology. The ecological cum social crisis is due to the hierarchical systems and the exploitative class relationships that permeate contemporary societies. Domination of each other, living things, and nature (falsely construed as an entity external to humanity), although often justified as natural may be catastrophic for human and non-human lives and for those abiotic processes that make our planet habitable. The constant drive for growth and increased production, controlled by fewer and fewer, increasingly more centralized agents, has resulted in a fundamentally unjust and environmentally unsustainable world. In a synthesis of the social anarchism tradition with ecological thought, Bookchin proposes strategies for social liberation and ecological sustainability based on more diverse ecologies of ideas, occupations, and values.

Gregory Bateson (1972) envisioned an interdisciplinary approach for exploring the changes and patterns of consciousness, at both the social and the individual level. For him, the scope of such an ecology of consciousness is analogous to the scope of biological ecology. Bateson (1972) stressed the parallels between the mind, consciousness, and ecosystems: he argued that ecosystems are best understood not as just material and energetic systems, but as communicating and informational, even mental systems, "minds." Crucially, he also argued that, to properly understand ecosystems, we need to discover ways to think ecologically, recognizing ourselves as an integral part of the system we interacted with.

Furtherfield's two-year (2009–11) program on new Media Art Ecologies, which was running parallel with their regular program, aimed to increase opportunities for art making, critical debate, exchange, and participation in emerging ecological media art practices and to engage with theoretical and socio-political debates on ecological issues. The program grew out of "an interest in the interrelation of technological and natural processes: beings and things, individuals and multitudes, matter and patterns."

^{35 &}lt; http://www.Furtherfield.org/projects/Furtherfield-media-art-ecologies-2009-12>.

The Media Art Ecologies program interpreted theoretical insights into:

Ecological media artworks [that] turn our attention, as creators, viewers, and participants, to connectedness and free interplay between (human and non-human) entities and conditions. This points to the deep promise of participatory democracy: not its illusion in thin, isolating and ennuiproducing contexts that we see in the monitored interfaces of corporate owned social media; but the parallel universe of FOSS skills sharing and commons-based peer produced artworks and media. (Catlow 2012)

New work in ecological media arts across and between material, virtual, and cultural domains was supported through exhibitions, commissions, and flightless international residencies, resulting in artwork, reviews, articles, interviews, and essays by practitioners across a range of disciplines. Much emphasis was also placed on the dissemination of knowledge that emerged through the program's activities to the wider community, beyond Furtherfield's usual audiences/participants.

Furtherfield's Media Art Ecologies projects were diverse in both content and artistic practice. The first project was the Feral Trade Café, an art exhibition and working café serving food and drink traded over social networks at HTTP Gallery for eight weeks, over the summer of 2009. Curated by Kate Rich, the Feral Trade Café provided "a convivial setting from which to contemplate broader changes to climate and economies, where conventional supply chains (for food delivery and cultural funding) could go belly up." 36

This was followed by the *Zero Dollar Laptop* project, a recycled laptop running Free Open Source Software (FOSS), "repurposing otherwise redundant technology, gathering dust in bedrooms and offices across the country." The project was inspired by the Zero Dollar Laptop Manifesto³⁸ and comprised a series of workshop programs with different community groups (among them the St. Mungo's Charity for Homeless People). In the workshop's twelve weeks (in 2010), participants learned about using their laptop creatively, from installing their own operating system, to customizing their machines, writing articles, and creating images to share and publish via social media. The project attracted inter-

 $^{36 &}lt; \underline{\text{http://www.Furtherfield.org/media-art-ecologies/feral-trade-cafe}}.$

 $^{37 &}lt; \underline{\text{http://www.Furtherfield.org/media-art-ecologies/zero-dollar-laptop}}.$

^{38 &}lt; http://jaromil.dyne.org/journal/zero_dollar_laptop.html>.

est from other European cities (Budapest, Nantes, Madrid, and Brussels), with many offers for developing collaborative projects.

Another project linked with the Media Art Ecologies program was the *Telematic Dinner Party*, organized by Pollie Barden, a PhD researcher in Media & Arts Technology at Queen Mary University of London. Pollie co-organized this event with Alex Haw from Latitudinal Cuisine,³⁹ a group of food enthusiasts who gathered weekly in different houses and other locations across London to dine together with food prepared in accordance with that month's corresponding longitude. On June 9, 2011, for instance, when the *Telematic Dinner Party* was hosted in Futherfield Gallery, the participants had to prepare food from Russia (as that month's longitude was 169, corresponding to a Russian geographic location). The event was co-hosted by Telenoika in Barcelona, an "audio-visual open creative community."⁴⁰ The goal of the event was to create a satisfying co-present experience of a dinner party, where two remote groups (London and Barcelona) were sharing a meal mediated by sonified objects embedded within smartphones. The plan for the dinner party read as follows:

The Dinner Party Plan

The dinner party will be formatted in the style of Latitudinal Cuisine (LatiCui). LatiCui cooks food from the longitude corresponding to the day of the year. For June 18th the longitude is 169th day of the year and therefore the 169 longitude. We will be eating from Russia or New Zealand.

There will be three courses: Start, Main, Dessert:

- one guest brings a Starter.
- two guests brings a Main.
- one guest brings Dessert.

Each participant will choose which type of dish they will bring. Make (or buy) enough for the four people with whom you will be dining.

At the start of each course, the dinner guest presents their dish and tells why they choose to make/buy it and any other stories. 41

^{39 &}lt; http://www.latitudinalcuisine.com/>.

^{40 &}lt; http://www.telenoika.net >.

^{41&}lt; http://www.Furtherfield.org/community/calendar/calibrated-cuisine-mobile-mobile-din-ner-party>.



Fig. 17 The Telematic Dinner Party at Furtherfield Gallery

Pollie video-documented the dinner to use for her PhD research on how the diners in the co-present and remote spaces interact; how we prepare, eat, and share food; and how human and non-human agents interact, mediate, and co-create practices of food preparation and consumption.



Fig. 18 Documenting the Telematic Dinner Party

The numerous collaborations, partnerships, and projects, both online and in physical space, have shown that there is a very distinctive model of creativity within Furtherfield. Their fascinating diversity notwithstanding, they share a common focus that goes beyond the individual maker or the single author to explore relationships and collaborations between different people and between things and people. Furtherfield has grown, first as an idea, then as life project, on the fertile ground of a real relationship, that of its cofounders. Ruth and Marc share many ideas and approaches to working and making, but, at the same time, maintain their very distinct individualities.

Let's not pretend that Furtherfield isn't driven by Marc and I. We talk a lot about distributed creativity and that we are part of the community. It is also quite driven by Marc and I. But I think the dynamic comes from our very different backgrounds and how we resolve things and fighting about things. We learn through this process to dynamically collaborate and co-exist. (Ruth, pers. comm.)

Furtherfield has evolved into a community and organization by expanding their membership into different directions and embracing people, communities, and far-reaching networks that share its ethos of collaboration, sharing, and co-creation and its willingness to immerse themselves in the texture of interactions that render creation possible.

When you bring two things together, it's kind of like an act. I suppose my fundamental understanding of what creativity is, is when you bring two things together that wouldn't ordinarily be together. And find that there's a dynamism and productivity to that you don't get with someone just going on their own and doing something and developing something for themselves. This is also what makes the community. It's a sense of being connected to people in an interesting way. (Ruth, pers. comm.)

THE FUTURE

In this report, I have tried to describe some projects, activities, and practices which demonstrate Furthefield's ramified nature. To me, Furtherield's most striking characteristics were its expansiveness and inclusiveness. These allowed new collaborations and partnerships to flourish in physical and online space, within and beyond the existing community.

Since 2011, when I embarked into my ethnography, there have been many changes and shifts on the strategic plan for Furthefield's future. My fieldwork co-

incided with a time of major cuts at the arts and creative industries sector in England (and the UK in general). These cuts made Furtherfield's future seem uncertain. While their new three-year funding was secured, there were also discussions on how Furtherfield might be able to survive independent of state funding (and free of the compromises the latter often entails). Ruth, for instance, talked of the possibilities of developing synergies with other regional art galleries and museums. She was also keen to continue working on Media Art Ecologies, developing projects that link digital culture to issues of climate change. All these potential projects would be true to Furtherfield's ethos of "collaboration and participation, including audience and artists and changing the relationship between the audience and artist through touring programs."

Another project considered by the Furtherfield team was to develop a new educational scheme as an alternative to the ongoing privatization of higher education. Marc was particularly keen to explore the possibilities of establishing a scheme free and open to all academies for the arts.

So, it wouldn't have the formal higher education validation, but it would build on Furtherfield's reputation and networks. It would be some cross between education and apprenticeship and project production, combining that in a kind of a lab space with some very formal teaching so that people will really leave knowing how to do things. (Mark, pers. comm.)

Although Furtherfield began as a mainly online community dedicated to new media and the digital arts, during the last few years the interest of many of its participants has shifted toward its physical entity, as a gallery and workshop space. In our conversations in the months of uncertainty, before getting the new three-year funding (2011–14), Marc repeatedly talked about the importance of being physically present in, and engaging with local communities. Poignantly, he described his vision of Furtherfield as an online and physical entity:

The online element will always be there, but the main aim is for us to not always be reliant. We've always wanted to stay physical at the same time. Like a tree you know, they have the roots and they also have the branches. We always wanted to be like that, equal.

My visits at the new Furtherfield Gallery in Finsbury Park led me to conclude that Marc's and Ruth's vision for the future of the organization and community has been realized to a great extent: the new gallery space is more engaging, accessible, and open to a wider community; new collaborations and partnerships

have been established and older ones have been strengthened; and innovative educational and outreach programs have been initiated and generated very positive responses. For this reason, I was taken by surprise, soon evolving into concern and apprehension, when in early March 2013 I read on Marc's Facebook status an appeal to raise money for Furtherfield by late April 2013:

Until last year Furtherfield more than doubled its grant income by doing commissioned work in schools and with partners in a range of contexts. The current policy of austerity and cutbacks means that funding for this work is greatly reduced. As with many non-profit arts organizations we are running as lean as we can and core public funding is shrinking. This coincides with a growth in the range, depth of our activities, in our arts program and local engagement.

So for the first time we are asking for donations to sustain and grow our work.⁴²

POSTSCRIPT

Although my fieldwork ended in October 2012, and since I have not had the chance to follow Furtherfield's unfolding in detail, I still consider our collaboration ongoing, unfinished, extending to the present, and hopefully beyond. The people who make up the Furtherfield community are present here; their voices resonate in the quotes interspersed within this report, their acts of generosity and wisdom continue to inform my understanding of creativity through sharing, collaboration, and co-creation beyond hierarchies in ways that I have just begun to appreciate and address with words. In these ways and more, this report is coauthored with my Furtherfield hosts.

^{42 &}lt; http://www.Furtherfield.org/appeal/appeal-extra.pdf>.

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CREATIVITY AND INNOVATION IN PRACTICE

THE ELMCIP KNOWLEDGE BASE

SCOTT RETTBERG WITH ERIC DEAN RASMUSSEN

eveloped as part of an international, digital-humanities project, Developing a Networked-Based Creative Community: Electronic Literature as a Model of Creativity and Innovation in Practice (ELMCIP), the ELMCIP Electronic Literature Knowledge Base is an open-access, online database tracing activity in and around the field of electronic literature and the digital literary arts. Inspired by Ted Nelson's (1981) vision of literature, broadly understood as "an ongoing system of interconnecting documents," the Knowledge Base is collecting and connecting bibliographic information and archival materials about the literary production in this field. As this information is linked and cross-referenced in various records in the Knowledge Base, the relations between objects and actors in the field of electronic literature become explicit, perceptible, recognizable, and communicable. Together these relations comprise the field. In the Knowledge Base, they are defined through content types that include authors, creative works, critical writing, events, organizations, publishers, teaching resources, and databases and archives. The Knowledge Base now includes more than 9,000 cross-referenced records in these primary content types.

The Knowledge Base is intended to document electronic literature as a dynamic field of practice, one whose cultural import becomes more comprehensible when the activities of authors, scholars, publications, performances, and exhibitions can be related to each other, in multiple configurations. We have designed the Knowledge Base as a platform in which this complex web of relationships can be made visible and available for analysis. Researchers can begin to trace the activities generated or enhanced by a work as it circulates among different reading communities. When a record of a critical article is documented in the Knowledge Base, all the creative works it references are noted, and cross-references then automatically appear on the record for the work itself. Similarly, cross-references are made to every other type of record it touches—when a work by a particular author is entered, a reference automatically appears on that author's page, likewise for works published by a publisher and so forth. The Knowledge Base makes perceptible interactions between human and nonhuman actors, and it documents the diverse range of artistic, scholarly, and pedagogical practices in the field of electronic literature.

The Knowledge Base is an *open-access* online research resource. The majority of the information in the database can be accessed by anyone with an Internet connection, without a log-in. The main constituency of the Knowledge Base is researchers and scholars who are serious about literary production in digital environments. The Knowledge Base serves both as a platform for research about electronic literature and as a site for self-reflexive research community formation. To that end, the Knowledge Base is a participatory online database. While a team working mainly in University of Bergen Electronic Literature Research Group has been responsible for the development of the platform itself and for the development of a great deal of the content in the database, contributors to the Knowledge Base also include many writers and researchers who are practicing artists and scholars in the field, contributing remotely in many different parts of the world. The writers who create, critique, perform, and respond to works of e-lit can shape the digital literary field by documenting the actants and activities they deem significant within the Knowledge Base, which is designed to be a collectively authored, networked research environment.

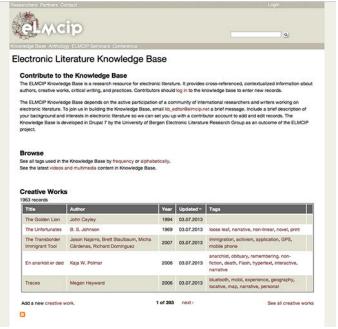


Fig. 1 Front page of the ELMCIP Electronic Literature Knowledge Base

The idea of developing research infrastructure in the service of creative literary communities is at the core of the ELMCIP project, which was initially funded by a three-year grant (2010–2013) from Humanities in the Research Area (HERA), under the Joint Research Project call for Creativity and Innovation. Each of the seven European ELMCIP partner organizations is studying how transnational and transcultural creative communities form, evolve, dissolve, and reassemble in distributed networked environments that make innovative use of digital-communications technologies, from a number of different angles and perspectives. As the ELMCIP acronym spells out explicitly, these studies focus on creative practices developed within electronic-literature communities, and they are intended to provide a model that can help facilitate better understanding of the interactions, both interpersonal and intermedial, that facilitate scholarly, artistic, and literary community and, in turn, further creativity and innovation.

PROJECT BACKGROUND

PROBLEM: HOW TO DOCUMENT AND MAKE VISIBLE CREATIVE AND SCHOLARLY ELECTRONIC LITERARY PRACTICES?

The ELMCIP Knowledge Base was designed to address a problem: how can one best document and make visible creative and scholarly literary practices that may appear disparate but comprise a dynamic and growing field? Electronic literature is a field that has been developing for more than two decades, yet it is still only beginning to find a clearly institutionalized position within higher education and research environments. One reason for this is clear: electronic literature has until now lacked a sustainable research infrastructure.

CHALLENGE: BUILD INSTITUTIONAL INFRASTRUCTURE TO SECURE MEMORY AND DEVELOP CONTEXT

An enduring research infrastructure is required if electronic literature is to develop as a field of writing practice, rather than existing as a potentially infinite series of ad hoc writing experiments too often identified with ephemeral technical innovations derived from the use of particular platforms or software. While novelty—ranging from fiction made in early

hypertext systems to kinetic poetry produced in Flash to writing in threedimensional immersive CAVE environments—has been a hallmark of this creative field of practice, a field cannot be built on novelty alone. From the standpoint of researchers and teachers, memory is more important than novelty. If we cannot understand present experiments and innovations in the context of those that have come before, we have very little context for teaching or indeed for new innovation. And because of the particular contingencies of the field of electronic literature, memory has posed some very specific problems. Researchers in the field of electronic literature deal with artifacts that exist in media and technical platforms that have shorter life-spans than printed books. The majority of digital literary artifacts electronic literature researchers encounter are both literary works and computer programs. Because of the pace of technological advancement, platforms very quickly become obsolete, so over time works of electronic literature become increasingly difficult to access and study. Further, traditional institutions of literary culture, such as libraries, publishers, and university curriculum committees, have struggled with practices of documenting, disseminating, evaluating, and preserving these types of literary artifacts, which are materially distinct from printed literary artifacts, offering complex archiving challenges.

In many established disciplines, research infrastructure has been in place so long that it might seem to be transparent. Everything from research databases to academic presses to scholarly and creative journals and conferences at which to present current work have long been in place for print-based literary studies. In most arts and humanities disciplines, young artists, academics, and researchers can be initiated into an already existing infrastructure, which, even if it is changing, remains stable enough that most pedagogic energy can be devoted to passing along relatively established methodologies. Authors and scholars of electronic literature, however, have had to address the fact that the field's institutions, organizations, and methodologies have not had an a priori existence: they must first be invented and then attended to, so that innovative work will continue to bear fruit. The Electronic Literature Knowledge Base is both a manifestation of this field-building process—providing a better means to document and preserve creative and critical practices—and a platform through which other aspects of the developing infrastructure can be made more visible and accessible.

CHALLENGE: MAP THE CONTEXT TO UNDERSTAND AND FACILI-TATE A LITERARY ECOLOGY

There is a need for tools to both provide access to creative works and to scholarship and to provide a clear context for understanding the relationship between creative and critical work. Compared to other art-and-critical practices, the field of electronic literature has developed in an atmosphere of close symbiosis between critical and creative practice. If one were to examine the institutional structures of contemporary print creative writing and contemporary literary studies, one would likely discover that writers and critics operate in separate milieu, with the "writer's workshop" set off in a separate wing of the university from the critical apparatus. As an emergent field electronic literature has more often found the critics and the writers present in the same rooms: presenting creative work and critical work at the same conferences, publishing work in similar venues, and participating in the same discourse networks. Another important contextual difference is that the spread of the field of electronic literature has been broadly interdisciplinary: so it is not merely a matter of writers and critics working in close quarters, but that people of diverse backgrounds including visual and conceptual arts, communications and design, and programming and computer science have also been engaged. Further, the publication venues in the evolving field diverge in substantial ways from traditional modes of literary publication. A work of electronic literature might be published on a CD-ROM or online journal, venues that might map roughly onto print publishing practices, but it might also be exhibited in a museum or art gallery, or presented as a live performance. There is a need to understand how work is presented by these diverse cultural actors in similarly diverse cultural arenas. By documenting and mapping out not only creative works and critical writing but also the diversity of cultural venues—and most importantly by making the connections between visible—we provide new avenues of understanding creative, critical, and cultural practices as existing within a dynamic ecosystem, a literary ecology.

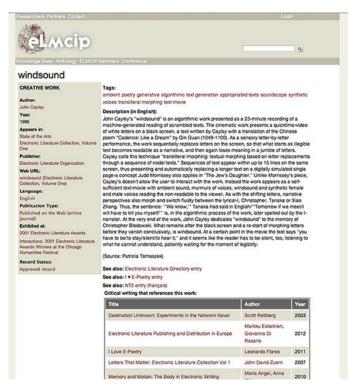


Fig. 2 Records of creative works include both standardized bibliographic metadata and cross-references to records of critical writing that reference them, as well as links to records in other databases that document the work.

CHALLENGE: IDENTIFY NETWORKS OF RELATIONS TO BETTER UNDERSTAND LITERARY COMMUNITY

One model of understanding literature and literary culture is as a series of *works* produced by authors—individual expressions produced by variously talented or inspired individuals working in isolation and best experienced in an immersive, contemplative mode. The ELMCIP project as a whole, however, has presupposed a different model, one in which both literary community and the literary artifact itself can be understood as networks of relations. A conception of a work of electronic literature as a network can be derived from the formal and material qualities of many of the works themselves: a hypertext novel is a literary work built of links and nodes, offering multilinearity and branching paths in place of narrative arc; a kinetic Flash poem is built of timeline, sprites, and assets rather

than stanzas and lines; and a poetry generator is an algorithmic structure that assembles poetry from arrays of possible verse. In studying these types of works, we understand them as networks of relations between different parts, producing contingent literary experiences on the computer and network. Likewise, the literary ecology that results in the creative practices of electronic literature can be understood as a network of networks, encompassing human and machine intelligence, social practices and affiliations, ad hoc alliances, and formalized institutions. Core to the conception of the Knowledge Base is the idea that those networks should be acknowledged, made visible, documented, and made accessible for study. This is not just a theoretical concept but one which, for instance, has consequences for bibliography and institutional placement of electronic literature as a field. One goal of the ELMCIP project has been to bring database methods and an archival sensibility to types of artifacts and practices that are not often documented in a bibliographic fashion.

ENVIRONMENTAL SCAN—RELATED WORK IN THE FIELD

While the ELMCIP Knowledge Base brings some new documentation methods and research infrastructure to the field of electronic literature, it is important to acknowledge the fact that it is itself only one element in an increasingly dynamic network upon which the field is built. Indeed, its purpose is in part to bring a number of other resources, organizations, and communities into productive engagement with each other. The Knowledge Base is not the first or the only online database working to document the field of electronic literature. In fact, the ELMCIP Knowledge Base is now part of the CELL (Consortium for Electronic Literature) initiative (addressed later in this paper), which includes a number of different electronic literature database projects. An understanding of the diversity of actors and sites of activity has been important to the concept of the ELMCIP Knowledge Base.

Founded in 1999, the USA-based literary nonprofit Electronic Literature Organization has played a significant role in shaping the institutional identity of electronic literature, through its website, online directory, publications, Electronic Literature Collections, conferences, and highly engaged community of critical and creative practitioners. With a large and nationally distributed board of directors, including international representation, the ELO has for more than a decade been a driving force in establishing a growing field. The SUNY-Buffalo

based Electronic Poetry Center has also played an important formative role since the late 1990s, both via the EPC—an early index of links to works and authors and some archival materials related to E-Poetry—and most importantly via the E-Poetry Festival. In Quebec, the Montreal-based project NT2 (Nouvelles Technologies Nouvelles Textualités: Le Laboratoire de Recherche sur les Oeuvres Hypermediatiques) has also played an important role since 2002. The well-funded initiative is the most developed French-language initiative in field, including an extensive online directory of works, the "Répertoire des Arts et Littératures Hypermédiatiques," a bibliography of critical writing, an online journal focused on digital literature, and periodic events and conferences. In France, a group centered on the Laboratoire Paragraphe at Paris 8 University has been active in developing projects related to electronic literature including publications and conferences since the 1990s. The Barcelona-based Hermeneia research group has included representatives from a number of European countries, and since the early 2000s has organized a number of conferences and publications, including an index of links to electronic literature works.

There are a number of other significant actors responsible for building the field of electronic literature, including commercial publishers such as Eastgate Systems and online journals such as the New River Quarterly, Hyperrhiz, the Iowa Review Web, Poems that Go, BeeHive, and others. A number of major academic presses, such as the MIT Press, the University of Minnesota Press, the University of Alabama Press, the Computing Literature series at West Virginia University Press, and others have published monographs and collections of critical writing focused on electronic literature. In addition to conferences, such as the Electronic Literature Organization conference and the E-Poetry festival, which are focused centrally on electronic literature, a number of other conference series, such as the Digital Arts and Culture conferences, the ACM Hypertext conferences, and the International Society for Electronic Arts conferences, have featured e-lit as one of their concerns. A number of one-off conferences, museum and gallery exhibitions, individual readings, and smaller seminars are also sites of activity in the field. Electronic literature has found a place within the academy per se, as it is increasingly featured within curricula in language, literature, rhetoric, communications, and media courses. Some particular centers of academic electronic literature activity, such as Brown University, the University of Bergen, Paris 8 University, and others, now feature electronic literature as part of their curriculum. In libraries,

there are also some special collections and library archives, such as the Michael Joyce Collection at the Ransom Center, the Deena Larsen collection at MITH, and the Archive-It Internet Archive collection established by the Electronic Literature Organization in cooperation with the Library of Congress. Finally and perhaps most importantly, the field has been built on many Internet-based communication channels, such as listservs, weblogs, and increasingly in social media.

While online indexes of links, such as the EPC or the Hermeneia guide to online digital literature, have long been useful resources, the two resources most directly related to the ELMCIP Knowledge Base are the Electronic Literature Directory (ELD) developed by the ELO and the NT2 "Répertoire des Arts et Littératures Hypermédiatiques." The ELD, released in its first incarnation from roughly 2000-2004 and reimplemented in it current form from 2009, was the first openaccess relational database—as opposed to a web portal or index of links—to document works of electronic literature. At the time, the goal of the developers was to develop a Yahoo-style index site to electronic literature, including short blurbs and pointers to creative works of electronic literature. More than a decade ago, the conception of what categories of entity might constitute electronic literature were quite different from what they are now. The first ELD featured categories like "Long Fiction," "Short Fiction," "Hypertext," and "Audio" but did not, for instance, have any facility to tag works using an unstructured vocabulary. The first version of the ELD soon suffered from both a problem of link rot—within a couple of years the majority the links gathered in 2000 did not work—and problems related to the fact that it was custom programmed on a bespoke database platform, so the original maintenance path was gone when the original developers were no longrer available to the project. The first two Electronic Literature Collections (2006, 2011) established a new convention for documenting work in more detail, including detailed descriptions, artist's statements, technical instructions, and keywords, which provided a way to quickly tag works with different concepts, themes, platforms, and techniques, thus providing a diversity of approach patterns to the material. This represented a break with the approach of categorizing in the first ELD, which was both more hierarchical and more tied to genres and approaches derived from print literature. The current ELD, directed by Joseph Tabbi, has taken as its mission the detailed description of individual works. The production of the current ELD is a critical writing activity, aiming to establish short canonical descriptions

of works. The ELD also includes other resources, such as critical writing, though the two record types are not tied together.

The NT2 Répertoire is a very extensive French-language collection of works of electronic literature and digital art, which includes more than 3,800 "fiches" providing descriptions and bibliographic information about the work. NT2 has done particularly good work in developing structured taxonomies addressing media, genre, interactivity, and other aspects of the works in the Répertoire.

Each of these projects has a different focus and goals within the same zone of cultural practice. The fact that there are multiple actors engaging in the work of large-scale documentation of electronic literature is to the benefit of the field. There are two particular areas in which the ELMCIP Knowledge Base is distinctive in comparison to its peers. The first is that, situated within a European research context, it has been in a better position to represent that context and bring the work of European writers and researchers into visibility alongside Anglo-American work. The second grows out of the challenges described above. In bringing in documentation not only of creative works, but also of critical writing, events, teaching resources, and other types of objects—and most importantly by mapping the relations between all of them—the ELMCIP project can develop a richer context for understanding the work in the context of a whole field.

PROJECT DEVELOPMENT, EVOLUTION, AND WORKFLOW THE CONTEXT OF THE ELMCIP PROJECT

Focusing on a particular creative community—electronic literature practitioners—the central research question of the ELMCIP collaborative research project is how creative communities of practitioners form within transnational and transcultural contexts, within a globalized and distributed communications environment. We have sought to gain insight into and understanding of the social effects and manifestations of creativity. Our research tried to exploit the characteristics of electronic literature in order to inquire into how a broader range of networked creative communities could develop.

In pursuit of purely objective research goals, it would have been possible to frame such a research project externally to the field itself, for example, by limiting the study to ethnographic research conducted by disinterested social scientists. But ELMCIP did not pretend to a false sense of objectivity. Our researchers

are active as scholars, writers, and artists in the field that is the subject of our research. Our interest is not simply to study a field that has already been established and understood as completely formed, but rather to better understand the conditions for the formation and advancement of network-based creative communities by actively engaging in the work of better developing a field in which we as researchers are already actively engaged. The research outcomes of ELMCIP were, therefore, not limited to cultural analysis, but included the development of research infrastructure for electronic literature.

The collaborative research project included seminars, workshops, a conference, an exhibition, an anthology, and diverse forms of scholarly publications. Linking all of these outcomes together and the central work package of the University of Bergen team is the ELMCIP Electronic Literature Knowledge Base.¹

ORIGINAL INTENT OF KNOWLEDGE BASE AND EVOLUTION OF PROJECT SCOPE

The ELMCIP Electronic Literature Knowledge Base as originally proposed would have included a narrower scope than the resulting project. In the original ELMCIP project proposal, the Knowledge Base was described as:

a central web resource for the Collaborative Research Project (CRP), keeping participants and stakeholders informed about progress on the project, events, and deliverables as the CRP proceeds, and will serve as a open distribution mechanism for research generated by the project. The knowledge base will also serve as a centralized, searchable archive of information about European electronic literature and other related creative communities, which will be maintained by the University of Bergen beyond the grant period. The knowledge base will not simply serve as a set of information pages about the CRP, but will also be a research outcome and distribution platform for the CRP, serving to widen the audience of the CRP and to increase the impact of the research conducted by the CRP.

An important distinction between the scope of the original proposal and the model that eventually evolved was that the project was initially focused mainly on the research produced directly as a result of the ELMCIP project, the project that eventually evolved is scoped out to the entire field of practice. For instance, while the ELMCIP Knowledge Base includes extensive records produced as a re-

^{1 &}lt; http://elmcip.net/knowledgebase>.

sult of the ELMCIP seminars and the Remediating the Social conference, there are also very extensive records of many other events in the field over the course of the last decade. And while we initially proposed a primary focus on European work, we realized—as we produced the ELMCIP seminars—that it no longer makes a great deal of sense to limit scope to any particular geographic area, given that the field of electronic literature is evolving on an international basis: the interplay of critical and creative actors in a network-based environment includes a great deal of cross-cultural work and transnational interaction. So though it entailed a significant broadening of scope, fairly early in the process it became clear that rather than working with a narrow selection of work and practices, it would make more sense to try to document the dynamic field of practice as a whole. Another example of productive scope creep in the ELMCIP project has been that while our central focus was and remained to develop the Knowledge Base as a metadata / bibliographic resource (documentation database), as the platform has developed the project now also has elements of an archive, such as the hosting of full-text PDFs, source code of some creative works, images, audio files, and other media assets.

Beyond taking on a bigger chunk of the field than initially intended, however, most of the technical objectives originally stated for the Knowledge Base have served as our guidelines since. These proposed objectives include the following:

- Breadth. The knowledge base will be as comprehensive as possible, including presentation materials from all of the seminars conducted under the CRP, downloadable versions of articles produced as a result of the research, downloadable versions of the reports, exhibition catalog, and ethnographic study, online versions of the works or documentation included in the exhibition DVD and the anthology, information about active and historical network-based creative communities, information about individual works of electronic literature, information about scholarship about electronic literature, and resources specific to the CRP itself.
- Granularity. Rather than simply redistributing PDF files of research
 and reports conducted as part of the CRP, the knowledge base will
 extend the bibliographic usefulness and searchability of the research
 conducted by the CRP. Structured data about individual works, important critical and theoretical articles, individual authors, institutions, and events will be harvested from the research on an ongoing

basis as individual records, thus resulting in a useful searchable bibliographic resource.

- Open Access. Once vetted and reviewed by project PIs, all information entered into the knowledge base will be available on a free open access basis. Whenever possible, knowledge produced by the project will be released with a permissive Creative Commons license or into the public domain.
- Sustainability. In order to make the knowledge base as durable as possible, we will use widely supported open source CMS and database platforms. UiB will further commit to host and support the knowledge base for a minimum of five years beyond the project period. Additionally, we will take steps to insure that the project is archived in its entirety by the Internet Archive² and by the Norwegian National Library, and it will, therefore, be freely available for the foreseeable future.
- Usability. The knowledge base will be designed and implemented according to Web usability best practices, emphasizing clarity, searchability, and accessibility.

THE PROJECT TEAM

The ELMCIP Electronic Literature Knowledge Base has been the primary deliverable of the ELMCIP research team at the University of Bergen (UiB). Since 2010, the team working on the Knowledge Base has included researchers, technicians, and librarians at UiB. University of Bergen graduate and undergraduate students have also made significant contributions to the project. The team working at UiB has included both researchers whose time was funded by the project and several who were not funded directly through ELMCIP.

The team working on the development of the Knowledge Base has included:

- Professor Scott Rettberg (Project Leader)
- Professor Jill Rettberg (Co-Investigator)
- Eric Rasmussen (Funded Researcher for eighteen months, Knowledge Base editor)
- Patricia Tomaszek (UiB PhD student, developing content)
- Elisabeth Nesheim (UiB PhD student, work on design aspects)

^{2 &}lt; http://archive.org>.

- Stein Magne Bjørklund (Contracted Drupal developer)
- Thomas Brevik (Librarian)
- Aud Gjersdal (Librarian)
- Meri Raita and Helene Helgeland (Student assistants, developing content)
- Quinn Dombrowski (Digital humanities Drupal consultant based at UC Berkeley)
- Fulbright researchers Davin Heckman and Leonardo Flores; Fulbright Specialists Mark Marino and Rita Raley; and guest researchers Luciana Gattass, Melissa Lucas, and Natalia Fedorova (developing content and testing research and pedagogical applications), and
- UiB Digital Culture undergraduate students.

In the past two years, the development and use of the ELMCIP Knowledge Base has been integrated into the UiB Digital Culture curriculum. Students have contributed to various aspects of the Knowledge Base in UiB courses, including DIKULT103: Digital Genres, DIKULT203: Electronic Literature, and DIKULT303: The Graduate Seminar in Digital Media Aesthetics. In the Fall of 2012, we developed a new course, DIKULT207: Practical Projects in the Digital Humanities, in which a small group of students all learn about research and projects in the Digital Humanities more broadly and develop practical projects in the environment of the Knowledge Base. Some of these projects have included working on user interface design, working on documentation, working with taxonomy, and working to develop records in collections on specialized topics. In 2012–13, visiting post-doc researchers Luciana Gattass and Natalia Fedorova were also funded by the University of Bergen's SPIRE program for three-month stays at UiB to develop research collections in the Knowledge Base specifically focused on Brazilian and Russian electronic literature.

While the research team at UiB has been at the core of Knowledge Base development, a very important aspect of the project has been that it is an open contributory framework, and many writers and researchers in the field have now contributed to, developed records for, and shared resources with the Knowledge Base, including the majority of the other PIs working on the ELMCIP project, in addition to many other writers and researchers who have no formal affiliation to ELMCIP. If the Knowledge Base is to be sustainable as a collectively developed

resource, the development of this pool of contributor artists and scholars must continue and increase.

WORKFLOW, IMPROVISATION, AND THE INDUCTIVE, AGILE METHOD OF DEVELOPMENT

Many digital humanities projects are developed and tested for a long time before they are (if ever) made available online, on a march through milestones to completion. The workflow of the ELMCIP project has been different. The project was made public at a very early stage of the development process—in August 2010—and development work has proceeded on a nearly continual basis ever since. Members of the team working the project gather for meetings most Friday afternoons that bring together those working on the technical development of the project with those who are working on developing the content. As we have encountered specific documentation challenges, we have discussed the structure of the content types and fields, and made improvements and revisions that reflect those deliberations.

Another important aspect of the work flow of the database has been that we have made the choice to allow for and even welcome incomplete *stub* records. Because of our relational reference model, in the course of creating a new record for a critical work, a contributor might also have to create several new creative work and author records, an event, publisher, or organization record, etc. Our general principle is that stubs are to be thought of as seeds that can be revisited and made to grow at a later time. New entries typically then establish a branch from which other entries eventually grow.

Our guideline is "Document what you can, while you can, with the information you have at the time." We further consider any given record to be open to revision and improvement from any given contributor. That is to say that contributors can not only create new records and document those they have already produced, but can also edit a record produced by another contributor. The record is not conceived by us as a fixed canonical description, but as a dynamic resource, which can and should develop over time. Further, because we are documenting a dynamic field as it is unfolding, the coverage of the Knowledge Base will always be incomplete. We accept this state of incompletion as a condition of our field and of our practice.

While the Knowledge Base is a documentation project, it is also an *improvisational* project. One of the great pleasures of building the Knowledge Base has been the discovery that we can and will make it up as we go along. As we realize that we are missing important aspects of the field we can add them to the model. As we have gathered all of this information, potential new applications reveal themselves, and we can build those into the system.

To provide a few examples: We realized about halfway through our development process that this would be an excellent platform in which to both share and develop teaching resources—given that many of the creative works and critical writing that are core to a syllabus are already there. Later we were discussed the fact that while we were spending so much time discussing databases and archives, we had no way of accounting for those, so we added them to the Knowledge Base. We are currently in the process of adding a Platform content type to describe specific authoring systems and archives, and we will cross-reference those to works in the same manner as we cross-reference the other content types.

The vital content types and essential elements of the field have only become apparent to us as we have worked on the database. Developing research infrastructure *is* research.

We are developing ways that individual researchers and teachers can use this platform as a research and teaching tool. For example, individuals can create private notebooks for their individual research and link to multiple items or to public research collections, to gather resources on a specific topic, such as Brazilian electronic literature, or e-lit for the iPad. We are also developing teaching tools and other applications within the Knowledge Base. The platform is flexible enough that we are able to engage in a continual process of reinvention.

PLATFORM AND TECHNICAL DEVELOPMENT

The Knowledge Base is built in Drupal—a free and open source content management system (CMS) developed by a worldwide communities of volunteers who are developing and using the platform in their own projects. Drupal has a very large installed user base. The project site reports that 993,458 people in 228 countries "power" Drupal, and the CMS is used by a number of high-profile public sites, including for example the *Economist* and the White House.

On its own, Drupal is a powerful system with standard content management features and online community functions. The reason why the ELMCIP

team chose Drupal over other alternatives such as Wordpress or Joomla is that it offers highly customizable database functionalities. The system allows for the design of custom content types and fields, so that fields describing different types of objects can be structured to be semantically meaningful for both human and machine users, and so that the use and display of media assets and other file types can also be customized for the situation at hand. The system also scales fairly well in comparison to other systems.

Drupal is a highly modular system. Like many other open source projects, this has benefits and drawbacks for users of the system. While the main Drupal system—Drupal core—is developed on one schedule, the modules are developed separately by separate teams of volunteer developers on a schedule that may or may not cohere well with the development of Drupal core. Some of the functionalities first offered by modules are rolled into core—a prominent example is the Content Construction Kit module—CCK—which enabled the highly customizable content types that made Drupal so attractive to the ELMCIP project. CCK was a module up to Drupal 6 but was rolled into Drupal 7. In 2011, about one year into the process of developing the ELMCIP Knowledge Base, we upgraded the system from Drupal 6 to Drupal 7. While with some systems a version upgrade might have been trivial, in this case it was major migration that took many development hours, and it took almost another full year before all of the modules we were using were ready for use with Drupal 7 or that we were able to find a suitable replacement. We were able to keep the system online and functioning while all of these changes were being made. Ultimately this made for a better and more flexible system, but we had not anticipated when we began the project how much care and feeding the platform itself requires. In comparison to many other types of projects, a database such as this one must be understood as an evolving ecology more than as a project that can ever be understood to be completely finished, or even completely stabilized. Even as the funded project ELMCIP is drawing to a close in 2013, we are still maintaining, modifying, and changing the system, bringing new capabilities to it and fixing bugs as they appear. In some respects, an active online database is more like a race car than it is like a book. It must be maintained and fueled, and parts must be changed over time or the system can and will break down. Of course, unlike an automobile, a system like this does not come with any sort of coherent repair manual. Perhaps a Frankenstein's monster would make a better analogy. At some point, it might occur to us that the creature

would function better with a new limb or sensory apparatus. We never clearly know how attaching that new appendage will affect the system as a whole until the surgery is completed and we observe the creature adapting to it. It is not a linear development process but a recursive one.

The ELMCIP Knowledge Base makes use of a number of non-core modules. More than 100 modules in total are installed and enable and enhance various aspects of the system. This discussion will not detail all of the modules use in the ELMCIP Knowledge Base, but a few should be highlighted. Among the most important of these for the particular Drupal implementation in the ELMCIP Knowledge Base are the *References* and *Entity API* modules, the *Views* Module, the *Media* module, and *RDFx* modules.

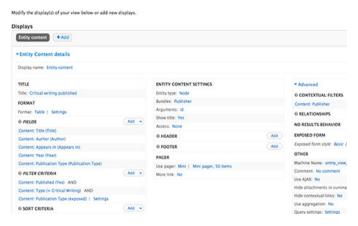


Fig. 3 The dozens of cross-reference tables in the ELMCIP Knowledge Base are delivered via configured views. A sample configured view above determines how works of critical writing will appear on the records of their publishers.

The *References* module allows us to create fields that are node references to other existing nodes. This allows for the approach to cross-referencing that is fundamental to the model of the Knowledge Base as a whole. When a contributor is entering a record using a reference-based field, the field is manifested as an autocomplete field—as the user begins to type, the field is querying the database for an existing record matching that title. If the record exists in the database, the text will complete; if not, the user first needs to add the other record. While this makes for some interruptions in the workflow if a user is entering a new work by a new author published by a publisher that is not yet in the database, etc., it

ultimately improves the workflow, since so many authors, publishers, and so forth are already in the Knowledge Base, and most importantly it captures the relationships between different objects and actors in the Knowledge Base that are semantically meaningful both to readers and to the system itself. Once these node reference relationships are established, the system can display the relation on both the node that the contributor is currently editing and the node being referenced. For instance, when a piece of critical writing references a creative work, that reference will appear both on the critical writing and on the creative work. The *References* module is what enables us to create those automatic cross-references.

The Views module has also been essential to the development of the Knowledge Base. Views is a module which treats all of the nodes and fields in the Drupal installation as elements of a database. A view is essentially a particular window on the database, structured according to contextual rules. So a view can include any set of fields of any content type, and those fields can be filtered based on the particular context of the user and of the view. Views can have multiple iterations and can display differently in different contexts. A great deal of the information in the Knowledge Base is displayed in table formats. Each of those tables are actually a separate view. Views are where the power of References are harnessed to display the contextual cross-references within the Knowledge Base. Using Views and Entity attachments, we are able to create views that automatically display cross-references. On the Author/Person content type, for instance, all of the creative works and critical writing an author has written, along with other activities, such as events organized by the person, are displayed on the given author's page. None of this information is directly entered on the Author page, but instead is generated by the system as attached views triggered by the references to the record.

The *Media* module and a cluster of other helper modules, such as Media: Flickr, Media: Vimeo, and Media: YouTube, help us to both manage a media library of attachments that are included in the Knowledge Base itself and to embed videos and photosets in the records so that they can display inline. Because the ELMCIP Knowledge Base includes and links to so many different forms of documentation, this module is used heavily on our site. For instance, many of the event records include photosets and video documentation, and a number of work records include attached video interviews with the artists. The *Media* module allows both internal and external media-rich content to display directly on

the page, making the Knowledge Base a richer multimedia experience than it otherwise would be.

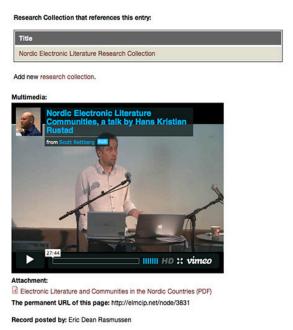


Fig. 4 In addition to locally hosted attachments such as PDFs, audio files, and source code, the Knowledge Base displays external multimedia resources such as videos of talks and performances hosted on Vimeo and YouTube.

The RDFx, RDF UI, and Schema modules specifically enhance the way that the information in the Knowledge Base is presented to the outside world, and enrich the way that the information in Knowledge Base records can be utilized by other systems. RDF—Resource Data Framework—is a framework for representing information on the Web. It is a syntax for representing relationships between objects according to agreed-upon semantic schemas. These schemas can be read by different agents and systems, making information that is labelled with RDF metadata more useful to other systems. Drupal 7 has some built-in RDF capabilities for core fields and content types. The RDF modules we have installed in the ELMCIP Knowledge Base allow us to extend these capabilities, both so that we can attach RDF metadata to the custom content types and fields we have defined, and so that we can use multiple RDF schemas. To put it in simple terms, these modules allow us to attach multiple metadata definitions to records and

fields, making them accessible to other systems in semantically meaningful ways. For example, because we have used a Schema RDF mapping, Google Rich Snippets and Google Scholar can access the records in the Knowledge Base in a more meaningful way than simply accessing them as web pages with generic text. Critical writing records in the Knowledge Base with PDF attachments are now almost immediately indexed by Google Scholar.

We are using multiple RDF schemas, and we continue to develop this aspect of the system. The goal is to make the Knowledge Base highly functional both as a system in its own right and as an *extrinsic database* of open data that can be harvested by other systems, making the work that is done on the Knowledge Base portable to other systems.

FIELD DEFINITIONS: THE POLITICS AND IDEOLOGY OF DEFINING A FIELD

While a map is not a territory, the type of territorial mapping the ELMCIP Knowledge Base and other related databases are doing defines and delimits an academic and creative field in a powerful way. Our realization has been that with this power comes responsibility. As we have developed the Knowledge Base platform, our research group has met most Friday afternoons during the Fall and Spring semesters. We discuss various technical and content issues related to the database. Almost inevitably, we leave the meeting with a list of new fields, and new views of information we have decided to add. Among the reasons for this are that as we discuss what types of entities compose the field of electronic literature and what type of material should, for instance, appear on an author record, we realize that we are also discussing the politics of academia, which highlight and value certain types of work and obfuscate others. So for instance, deciding that editorial work, development of teaching resources, and curatorial work should display on a person record as well as authored critical writing and creative work, is not trivial. This goes for nearly every field and every content type in the database. Including or excluding items from a form is a political decision, with consequences. To build a database is to realize the power of bureaucratic forms, and then to realize that you are building the bureaucracy. Insofar as it has been possible, we have strived to remove the cloak of invisibility from aspects of academic work that are often kept hidden from view: to make the many sorts of work that go towards building a field visible. We try to give credit where credit

is due at every opportunity, and we try to make visible all of the various forms of work that contribute the development of the field.

There are two other aspects of the Knowledge Base that are both about the sustainability of developing a Digital Humanities resource and the politics and ideology of the process. We have already described some of the logical reasons why we chose to use a free and open source platform. There are ideological reasons as well. The technologies that we use should match our philosophy about the disposition of knowledge we hope to achieve. Likewise, we choose to license the work that we do on the Knowledge Base with a Creative Commons Non-commercial Share-alike license, which then expressly allows other scholars, other creators, and for that matter other databases to re-use the information we share—and the information models, and the adaptations of the platform we are using—to further knowledge and develop new resources, provided they agree to do the same. If there is a core ideological position that guides our work on the Knowledge Base, it has been that knowledge that is shared and used never dies, but finds new utility as it moves through different communities of interest.

CONTENT TYPES AND FIELDS IN THE ELMCIP ELECTRONIC LITERATURE KNOWLEDGE BASE

What follows in this section is a brief description of the content types and fields in the ELMCIP Knowledge Base. Each record in the Knowledge Base is produced within a given predefined content type. At present these content types include: Author (Person), Work, Critical Writing, Publisher, Organization, Event, Teaching Resources, Databases and Archives, and Software/Platform. Each content type is defined by a set of fields. While some of these fields are open text fields, the majority of them are either node references, structured or unstructured taxonomies, links, or attachments. Defining the core objects and actors/content types of the field of electronic literature and defining the information that we as documentarians and archivists believe to be most important aspects of those objects to capture and document has been an important outcome of our work on this project. These content types and fields are by no means set in stone, and in fact are revised and expanded on a regular basis as we use, edit, and modify the Knowledge Base. For each field we indicate what type of information can be entered and indicate if the field allows multiple entries. Where it is not obvious how the field is used, we also provide short textual description. We also indicate what attached

views appear with each content type: these views provide information from other records that reference a given record that are not necessarily recorded in fields on the record itself: for example, creative and critical writing by an author will appear when her/his author record is displayed. These attached views only display when the type of material referenced is present in the database.

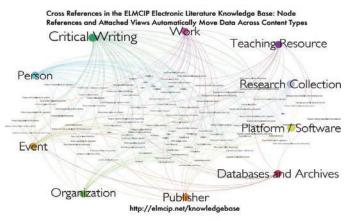


Fig. 5 Cross references between content types in the ELMCIP Electronic Literature Knowledge Base.

AUTHOR (PERSON)

Records for people, such as authors of electronic literature and critical writing, editors, and others. Records include name (required) and optional biographical and location information.

Basic Information

Title

The node title of a person record is constructed automatically as First name + Middle name + Last name

First name (Text)

Middle name (Text) Last name (Text)

Alternative spelling of name in original language alphabet (Text) This text field is used to indicate when a person's name is spelled differently in a different alphabet than its spelling using the English alphabet. We added this field after we began adding Russian authors to the Knowledge Base, whose names are included both in English spelling and in Cyrillic.

Personal website (Link)

Many electronic literature authors and critics maintain personal websites. This field is used to link to them. It is also used for links to other biographical sources, such as faculty websites at universities or Wikipedia biography pages.

Author email (Email)

The Knowledge Base collects but does not display author email addresses. These may be used by Knowledge Base editors to correspond with authors about their record in the Knowledge Base.

KB User ID (User reference)

When an author has a contributor account in the Knowledge Base, this field is used to tether the author record and the user account together, so that when contributors log into the Knowledge Base and check their user account, they see all the records related to their work, both those they created and those created by editors and other contributors.

Residency (Location)

A distinction is made between residency (where a person lives) and nationality (passport country).

Nationality (Location)

Affiliations—Organizations (Node reference to organization)

This node reference field is used to indicate when a person is affiliated with an organization, such as a university, department, professional organization, or writing collective.

Biography

Born (Year)

Died (Year)

Author photo (Image)

Short biography (Text)

This text may be in English or another language, or both may be included in the same field. Most of the short biographies in the Knowledge Base are sourced from author's pages, faculty pages, or similar.

Attachment (File attachment)

This field is used to attach PDF versions of CVs or similar biographical materials.

Editorial

Record Status (Structured taxonomy)

Record Status Options:

Not vet reviewed

Incomplete record (stub)

Duplicate record (aggregate and delete one)

Revisions required

Approved record

KB editor notes (Text)

Text field for internal editorial notes.

Views attached to Author (Person) records:

Creative works by this person

CREATIVITY AND INNOVATION IN PRACTICE

Creative works contributed to by this person

Critical writing by this person

Works translated by this person

Critical writing edited by this person

Journals edited by this person

Events organized by this person

Exhibitions curated by this person

Teaching resources by this person

Research collections curated by this person

Organizations this person is affiliated with

Research collections that reference this person

WORK

Works of electronic literature, digital literary art, and print antecedents.

Core Information

Title (Text) (Required Field)

Used to provide the title of the work, this also becomes the title of the node.

Author (Person node reference) (Multiple)

Node reference link to the person record of the author or authors of the work.

Contributor (Person node reference) (Multiple)

Translator (Person node reference) (Multiple)

Year (Number)

Year the work was first published.

Publisher (Publisher node reference) (Multiple)

Work Publication Type (Structured Taxonomy) (Multiple) (Required Field)

Publication Type taxonomy options:

Application

Exhibited at gallery or event

Installation

Locative narrative

Non-linguistic digital art

Performance

Presented at conference or festival

Print publication

Print publication (antecedent)

Published on disc, CD, or DVD

Published on the Web (individual site)

Published on the Web (online gallery)

Published on the Web (online journal)

Published on the Web (social network)

Published on the Web (virtual world)

Other venue

URL (Link) (Multiple)

Download URL (Link) (Multiple)

As opposed to URL for web-based resources, this field is used to indicate that an application or resource can be downloaded at the URL.

Archive URL (Link)

A separate field for Archive URL is used to indicate where a resource is linked to an archived resource, such as an Internet Archive URL.

WorldCat (Link) (Multiple)

A field to the WorldCat library database record or records for the work, where applicable.

ISBN (Number) (Multiple)

A field to provide the ISBN or ISBNs of the work, where applicable.

Language (Structured Taxonomy) (Multiple)

A list of human languages the work is written in, displayed a pull-down select list.

License (Select List)

License Options:

Public Domain

GPL

CC Attribution

CC Attribution Share Alike

CC Attribution No Derivatives

CC Attribution Non-Commercial

CC Attribution Non-Commercial Share Alike

CC Attribution Non-Commercial No Derivatives

All Rights reserved

Other

Event (Node reference) (Multiple)

For creative works, this field is used to indicate events where the work has been presented or exhibited.

Description

Tags (Unstructured Taxonomy) (Autocomplete)

Tags are an unstructured taxonomy. The idea is that each contributor provide a list of keywords they may arrive at independently to quickly provide an impression of the content and form of the work. Terms that are already the tag list will autocomplete, or new terms can be provided.

Description (in English) (Text)

An abstract-length description of the work in English.

Description (in original language) (Text)

An abstract-length description of the work in the original language, if the original language is not English.

Language of description (Structured Taxonomy)

Contributors note (Text)

CREATIVITY AND INNOVATION IN PRACTICE

A field to describe the roles that different contributors have played in creating a work.

Other language version (Node reference)

Node reference to cross-reference a version of the work translated in another language.

Other edition (Node reference)

Node reference to cross-reference another edition or version of the work in the same language.

Part of another work (Node reference)

Node reference to indicate that a work is part of a larger work, such as one-third of trilogy.

Pull Quotes (Text) (Multiple)

Text field to provide brief written excerpts from a work.

Technical notes (Text)

Text field to provide technical notes about a work.

Appears in (Node reference)

Node reference to indicate a work is published in a collection or anthology.

Documentation

Screen shots (Multiple)

To attach screenshots and other images of the work that will appear on the record page.

Multimedia (Multiple)

For Vimeo and YouTube videos, flickr sets, and other multimedia assets.

Attachment

For documentation PDFs, source code in a .zip file, or other attachments.

Electronic Literature Directory entry (Link)

Direct link to specific record for the same work in affiliated database.

I ♥ E-Poetry Entry

Direct link to specific record in affiliated database.

NT2 entry

Direct link to specific record in affiliated database.

Editorial Status

Record Status (Structured Taxonomy)

KB Editor Notes (Text)

Views attached to Work records:

Critical writing that references this work

Teaching resource that references this work

Research collection that references this work

CRITICAL WRITING

Critical writing, includes monographs, book chapters, journal articles, reviews, etc. written about electronic literature or referenced in electronic literature criticism, as well as non-traditional forms of scholarly discourse, such as video interviews, documentaries, and webtexts about electronic literature.

Core Information

Title (Text) (Required field)

Author (Node reference to Person) (Multiple)

Editor (Node reference to Person) (Multiple)

Translator (Node reference to Person) (Multiple)

Year (Number)

Critical Writing Publication Type (Structured Taxonomy) (Multiple) (Required field)
Publication Type options:

Anthology of creative work

Article in a newspaper

Article in a print journal

Article in an online journal

Article on the author's website

Article or chapter in a book

Book (collection)

Book (dissertation)

Book (monograph)

Conference paper or presentation

Conference panel or roundtable

Exhibition Catalog

Event review or trip report

Forum

Interview

Invited lecture

Issue of a journal

Keynote address

Notes and Drafts

Report or White Paper

Review

Series

Video essay / documentary

Weblog

Other

CREATIVITY AND INNOVATION IN PRACTICE

Presented at Event (Node reference to Event) (Multiple)
Node reference used to indicate that critical writing was presented at a given event.

Publisher (Node reference to Publisher) (Multiple)

University (Node reference to Organization)

This field is intended only for academic theses and dissertations to indicate the University the author is associated with.

URL (Link) (Multiple)

Archive URL (Link) (Multiple)

Language (Structured taxonomy) (Multiple)

License (Structured taxonomy) (Multiple)

Book or Journal Information

ISBN (Text field) (Multiple)

WorldCat (Link) (Multiple)

Edition (Text)

A text field to include edition information about a work published in multiple editions.

Other edition (Node reference to Critical Writing) (Multiple)

An autocomplete reference field to cross-reference multiple editions of a work.

Series (Node reference to Critical Writing)

This is a node reference field to indicate that an item of critical writing is part of the series cross-referenced.

Journal volume and issue (Text)

Text field to include journal issue number information.

Page Numbers (Text)

Text field to include page number information.

Appears in (Node reference to Critical Writing)

Node reference to indicate that the item is part of another work (e.g. an essay in a collection).

ISSN (Text)

ISSN number for serial publications.

eISSN (Text)

ISSN nùmbér for electronic serial publications.

Description

Tags (Unstructured taxonomy)

Abstract (in English) (Text)

Abstract (in original language) (Text)

Language of abstract (Structured Taxonomy)

Other language version (Node reference to Critical Writing) (Multiple)

Pull Quotes (Text) (Multiple)

References and Attachments

Creative Works referenced (Node reference to Creative Work) (Multiple) We encourage contributors entering items of critical writing to indicate what creative works of electronic literature the critical writing discusses. Cross-references are then automatically displayed on both the record for the critical writing and for the creative work.

Critical Writing referenced (Node reference to Critical Writing) (Multiple) This node reference field is used to indicate a cross-reference when one item of critical writing comments substantively on another.

Event referenced (Node reference to Event) (Multiple)

Node reference to indicate when an item of critical writing is about an event.

Organization referenced (Node reference to Organization) (Multiple)

Node reference to indicate when an item of critical writing is about an event.

Publisher referenced (Node reference to Publisher) (Multiple) Node reference to indicate when an item of critical writing is about a publisher.

Database or Archive referenced (Node reference to Database or Archive) (Multiple) Node reference to indicate when an item of critical writing is about a database or archive.

Electronic Literature Directory entry (Link)

Images (Image) (Multiple)

Image attachment field used for book covers or other images.

Multimedia (Multiple)

For Vimeo and YouTube videos of lectures, flickr sets, and other multimedia assets.

Attachment (Multiple)

File attachment field used to attach full text PDFs and other attachments.

Record Status

Record Status (Structured Taxonomy)

KB editor notes (Text)

Views attached to Critical Writing records:

Other editions of this critical writing

Critical writing contents of a collection

Creative work contents of an anthology

Critical writing in a series

Works referenced by this critical writing

Publishers / journals referenced by this critical writing

Databases and archives referenced by this critical writing

Events referenced by this critical writing

Other critical writing that references this critical writing

Teaching resources that reference this critical writing

Research collections that reference this critical writing

PUBLISHER

Short description of publisher. The publisher can be a press (e.g. The MIT Press) or a journal (e.g. *Electronic Book Review*).

Basic Information

Name of publisher (Title)

Location (Location)

URL (Link) (Multiple)

Editors (Node reference to Person) (Multiple)

The Publisher content type is used both for print publishers and for journals. While the names of individual editors are not typically included for publishers, journals often feature the editors in their colophon.

Email (Text)

Contact email for the publisher.

ISSN (Text)

e-ISSN (Text)

Events (Node reference to Event) (Multiple)

Node reference field to indicate events where this publisher or journal was showcased or exhibited.

Short description (Text)

Description of the publisher, typically sourced from the publisher's website.

Record status

Record Status (Structured taxonomy)

KB editor notes (Text)

Views attached to Publisher records:

Critical writing published by this publisher
Creative works published by this publisher
Critical writing about this publisher
Series by this publisher
Research collections that reference this publisher

ORGANIZATION

Institutional entities in which groups of persons collaborate for some end related to the field of electronic literature. Examples include: nonprofit organizations, arts organizations, research groups, academic consortia, academic departments, academic programs, etc. The record includes a description, the location, and contact information about the organization. Note: Journals and presses are listed as publishers, not as organizations.

```
Organization Information

Name of Organization (Title) (Required field)

Location (Location)

Email (Text)

URL (Link) (Multiple)

Description

Short description (Text)

Images (Image) (Multiple)

Used to display images related to organization (e.g. logo, screenshot of website, etc.)

Attachments (Multiple)

Used to attach PDFs or other files related to the organization.

Editorial Status

Record Status (Structured taxonomy)

KB editor notes (Text)
```

Views attached to Organization records: Events organized by this organization Critical writing published by this organization
Creative work published by this organization
Teaching resources developed by this organization
People affiliated with this organization
Research collections that reference this organization

EVENT

Events include conferences, symposia, festivals, exhibitions, and other occasions where works of scholarship and/or works of electronic literature are presented.

Event Information

Name of event (Title)

Event type (Structured taxonomy)

Event type options:

Awards

Conference

Event Series

Exhibition

Festival

Performance

Reading

Seminar

Workshop

Date (Date)

Start date, end date optional.

Organization (Node reference to Organization) (Multiple)

Node reference to indicate what organization or organizations are responsible for organizing the event.

Individual Organizers (Node reference to Person) (Multiple)
Node reference to credit individuals responsible for organizing the event.

Curator (Node reference to Person) (Multiple)

Node reference for the specific case of an exhibition, used to credit curators.

Email (Text)

Location (Location) (Multiple)

URL (Link) (Multiple)

Archive URL (Link) (Multiple)

Associated with another event (Node reference to Event)

Node reference to associate one event with another event (e.g. an exhibition or reading connected to a conference.

Event series (Node reference to Event)

Event series is one of the event types. This field is used to associate an event with its series (e.g. the Electronic Literature Organization conferences).

Description

Tags (Unstructured taxonomy) (Multiple)

Short description (Text)

Descriptions of events are typically sourced from the event website.

Event Documentation

Attachment (Multiple)

Attachment field typically used for PDFs of documents associated with an event, such as a printed conference program or poster.

Images (Image) (Multiple)

Multimedia (Multiple)

Editorial Status

Record Status (Structured taxonomy)

KB editor notes (Text)

Views attached to Event records:

List of events in an event series Works presented at event Critical writing presented at event Critical writing about this event

TEACHING RESOURCE

Teaching resources including syllabi, lesson plans, exercises, video tutorials, and other pedagogic aids.

Basic Information

Title of Resource (Title)

Type (Structured taxonomy)

Teaching Resource types:

Syllabus

Exercise

Bibliography

Video tutorial or lesson Other Teaching Resource

Author (Node reference to Person) (Multiple)

Organization (Node reference to Organization)

This node reference field is generally used for the university or department within a university that the teaching resource was produced for.

Year (Date)

The year in which the teaching resource was first produced. For syllabi we ask that information about the specific term in which the course was taught is included in the title and/or description.

Language (Structured taxonomy)

URL (Link) (Multiple)

Description

Tags (Unstructured taxonomy)

Abstract (in English) (Text)

Abstract (in original language) (Text)

Language of abstract (Structured taxonomy)

References and Attachments

Node references in the Teaching Resource type allow for direct links to the Knowledge Base record for creative works, critical writing, and other items that might be taught. This enables the Knowledge Base record for instance to be quickly developed as a very useful resource, with most of the reading for a course made instantly available from the moment the teaching resource record is created.

Creative Works Referenced (Node reference to Work) (Multiple)

Critical Writing Referenced (Node reference to Critical Writing) (Multiple)

Teaching Resource Referenced (Node reference to Teaching Resource) (Multiple)

Database or Archive Referenced (Node reference to Database or Archive) (Multiple)

Image (Image) (Multiple)

Multimedia (Multiple)

In this content type this field is most often used to attach video lectures or other multimedia resources.

Attachment (Multiple)

In this content type the attachment field is most often used for PDFs of syllabi and other resources.

Record status

Record Status (Structured taxonomy)

KB editor notes (Text)

Views attached to Teaching Resource records:

Works referenced in this teaching resource
Critical writing referenced in this teaching resource
Teaching resources referenced in this teaching resource
Databases and archives referenced in this teaching resource
Research collections that include this teaching resource

DATABASES AND ARCHIVES

Databases that document electronic literature and its cultural context, and archives or repositories that preserve and make available related materials.

Core Information

Title (Title)

Project Type (Structured Taxonomy)

URL (Link) (Multiple)

Organization (Node reference to Organization) (Multiple)

A node reference field to allow for links to the organization or organizations responsible for creating, developing, and maintaining the database or archive.

Key People (Node reference to Person) (Multiple)

A node reference field to credit individuals key to the development and maintenance of the resource.

Contributors' notes (Text)

A text field to describe the different roles that key people play in the operation of the database or archive.

Contact e-mail (Email)

Year Initiated (Date) (Select list)

Language (Structured Taxonomy) (Multiple)

License (Structured Taxonomy)

Description

Tags (Unstructured Taxonomy)

Description (English) (Text)

Description (Original Language) (Text)

Technical Notes (Text)

Notes about the particular platform of a database or access restrictions can be entered in this field.

References and Attachments

Events (Node reference to Event) (Multiple)

Node references to events where the database or archive has been presented.

Image (Screenshot) (Image)

Used to provide screenshots of databases, etc.

PDF Attachment

Used for PDF resources, such as a user's manual for a database.

Multimedia

Most often used for screencasts or other instructional videos about a database.

Editorial Status

Record Status (Structured Taxonomy)

KB Editor Notes (Text)

Views attached to Database and Archive records:

Critical writing about this database or archive
Teaching resources that reference this database or archive
Research collections that reference this database or archive

PLATFORM / SOFTWARE

This is a new content type that is being added to the ELMCIP Knowledge Base in 2014. Because works of electronic literature are most often authored using specific platforms and software, it is important to account for this in a technical description of the work. While this was initially addressed using the technical notes field and unstructured tags in the Work content type, the Knowledge Base team decided that a more structured approach is necessary. Making Platform/Software a primary content type will also allow for new ways of entering and searching the database. For instance, educators teaching people how to write and design using a particular system will be able to access a list of works created using that system from the individual Platform/Software record in the Knowledge Base.

Basic information

Developers (Node reference to Person) (Multiple)

This field will be used to credit individuals who have played particularly important roles in developing a particular platform.

Publisher or organization (Node reference to Publisher or Organization) (Multiple) Field to reference publishers / organizations responsible for developing and maintaining the software.

Year initiated (Date)

URL (Link) (Multiple)

Web addresses where the software or platform can be downloaded or purchased, and to tutorials, etc.

Description

Description (Text)

A short description in English and/or another language of the platform or software.

Version history (Text)

Most commercial and open source software is successive, released in a number of different versions, and each version has important material effects on projects produced using the software. Rather than creating individual records for each version of the software, which we think would be untenable, this field will be used to provide a version history of the platform.

License (Structured Taxonomy)

References and Attachments

Image (Image) (Multiple)

Attachment (Multiple)

The attachment field will be used for PDF documentation, and possibly .zip files of other documentation of the platform.

Multimedia (Multiple)

This field will mainly be used for screencasts and tutorials.

Views attached to Software/Platforms records:

Works developed in this software/platform

APPLICATIONS OF THE KNOWLEDGE BASE

As the Knowledge Base has developed and been adapted since its initial release in August 2010, we have realized that it can serve broader applications than those originally conceived and that the project can have significant unanticipated research impacts both within the field of electronic literature and within other knowledge domains. The applications of the Knowledge Base are listed in the following pages.

BASIC RESEARCH FUNCTIONALITY

The core functions of the Knowledge Base are to make locating works and critical writing in the field of electronic literature easier, to show how the different objects and actors in the field interoperate, and to represent the critical ecology of a knowledge domain.

BIBLIOGRAPHIC/INFORMATION SCIENCE FUNCTIONS

The Knowledge Base provides one model of a method to comprehensively document digital literary artifacts. In the field of electronic literature, this is particularly important since libraries have struggled with ways to catalog and collect works that are both works of literature and computer programs. Work on developing RDF and other metadata in the Knowledge Base should lead to better integration with LIS systems and use of electronic literature in libraries. The CELL initiative, described below, is an international attempt to standardize documentation fields for works of electronic literature that could have broad applicability.

ARCHIVAL FUNCTIONS

Although it was not initially conceived as an archive, to some extent the Knowledge Base provides a repository of resources and assets, such as documentation and paratexts of works that may no longer be accessible, PDFs and full text attachments of papers, conference programs, etc., images and photographs of works, events, people, and source code attachments of work. One important example of archival work being done in the Knowledge Base is the work that has been done to extensively document important events in the field, such as the ELMCIP and ELO Conferences and exhibitions, thus making them accessible and useful years after they take place. This helps keep the discourse of the field in circulation and allows us to observe its evolution within a temporal frame.

DIGITAL HUMANITIES PLATFORM RESEARCH

One function of the agile development method used to produce and continually modify the Knowledge Base is that the development of the system itself can be understood as ongoing experimental research in the digital humanities. Even some of the functionalities of the Knowledge Base that seem completely elementary, such as the idea that the critical writing references to a work should be cross-referenced and made visible on the record of the work itself, have been rarely implemented in other digital humanities database projects. While the Knowledge Base is rooted in the knowledge domain of electronic literature, it can serve as a platform model for other research fields and subspecialities, particularly those that are newly emerging or that fall between existing classification systems. As the project has proceeded, we have also realized the importance and value of considering the project as being in conversation with other research disciplines in the digital humanities more broadly conceived.

PEDAGOGICAL APPLICATIONS

The Knowledge Base has been developed by the Electronic Literature Research Group in the Digital Culture program at the University of Bergen, a research and teaching environment where different aspects of electronic literature are taught in several of our undergraduate and graduate courses, including DIKULT 103: Digital Genres, DIKULT 203: Electronic Literature, and DIKULT 303: Seminar in Digital Media Aesthetics. Because we have been teaching electronic literature even as we have developed the Knowledge Base, its pedagogical applications have become readily apparent to us. About a year into the development process, we added the teaching resource content type. This can be used both to document courses, assignments, syllabi, and other resources, and as a platform to simplify the production of new courses and syllabi. We have also added several other features specifically aimed at enhancing pedagogical uses of the Knowledge Base including:

- a Class feature which allows for creation of groups by teachers whose classes are using the Knowledge Base, giving teachers and other students in the class access to an overview of all records created by anyone in the class;
- a *Notebook* feature that allows for researchers to create pages linking together different types of records in the Knowledge Base (for exam-

- ple, creative works and critical writing) and to add their own notes in a page that is not publicly accessible to other users. This could be very useful, for instance, for students doing a research paper on a particular topic; and
- a *Research Collection* content type that allows for researchers to create publicly available collections of different types of resources within the Knowledge Base focused on a specific research theme (for example, Russian electronic literature or e-lit for the iPad).

In addition to implementing these content types and features, we have made active use of the Knowledge Base with several of our courses for the past two years. Students in our courses may, for instance, have an assignment to develop records about the work of a particular author, or to create a Research Collection that addresses the particular topic of their research paper. In 2012, we also introduced a new course, DIKULT 207: Practical Projects in the Digital Humanities. We have taught this course twice as a small, hands-on, workshop-style practical course. Students learn about the digital humanities and debates surrounding it in reading and writing assignments, but the bulk of their work consists of individual projects that develop aspects of the database ranging from specific areas of content development, editorial practice, interface design, taxonomy, or other under-the-hood aspects of the platform. Students involved in the course have reported their satisfaction that their work is not only appreciated in the course, but by other users of the Knowledge Base as well.

INTERNATIONALIZATION AND OPENING DISCOURSES BETWEEN COMMUNITIES

Compared to other databases in the field, the ELMCIP has a broadly international focus. While the project is based in Europe, the coverage of the database includes work produced in the Americas, Europe, Australia, Russia, and, to a limited extent, Asia. The *Research Collection* content type has been developed in part to serve the need to develop collections of resources within the Knowledge Base that focus on a particular country or language. An aspect of our development strategy is an initiative to recruit curators to develop resources in particular underdeveloped areas of knowledge about electronic literature. Through the

University of Bergen's SPIRE guest researcher program, we have been able to fund three-month visits of postdoc researchers to work with the development of specialized research collections. To date, two of these collections are in development: a Brazilian electronic literature research collection curated by Luciana Gattass and a Russian collection curated by Natalia Fedorova. Collections of Spanish and French language electronic literature are also planned. In general, we see building connections between diverse international communities at work in the field as an important aspect of the work of the Knowledge Base.

THE "EXTRINSIC DATABASE"

As previously mentioned in the discussion of RDF, it is important to realize that by making the information in the Knowledge Base machine-readable and accessible to other systems, we enable that information to circulate and reach audiences who are not necessarily interfacing directly with the database itself, but who either arrive at it via other systems or who encounter information from the Knowledge Base that has been harvested and interpreted by other systems. The vast majority of the visitors to the site arrive there not via the ELMCIP front page but as the result of a Google search for a particular author or work. For instance, all articles of critical writing posted in the Knowledge Base with PDF attachments, are now indexed by Google Scholar. As we have developed the project, an important aspect of our work has been considering how the information we publish can circulate and be made useful in systems outside of the platform itself. This is also an important consideration for the sustainability of the knowledge developed by the project. Most digital humanities projects have a limited lifespan, so it is very important to consider how the work put into a DH project and the information developed within it can be made portable and accessible to other systems in the future. This involves both technical and ideological concerns. We strive to make our data as open as possible, in part because we think this is the best way to insure its long-term survival.

"DISTANT READING" AND VISUALIZATION-BASED ANALYTIC RESEARCH

An additional application of the Knowledge Base is that as it has been used to aggregate a great deal of information about various objects and actors in the

field of electronic literature, it becomes increasingly useful as a resource for doing other types of research based on digital methods. In the University of Bergen Electronic Literature Group, we have begun to do big data research based on comprehensive reading of changes in trends, themes, technologies, and platforms, genres, etc. over time. Using the Drupal *Views Bulk Operations* module, we are exporting specified sets of information from the Knowledge Base and then pulling them into visualization tool-sets including Gephi, Wordle, Google Fusion Tables, and Many Eyes in order to spot and visualize trends. While this type of research, which Stanford-based scholar Franco Moretti describes as "distant reading," will never be a replacement for close humanistic analysis of literary works, we believe it will be very useful to develop some perspective and context for a field which has developed and evolved as quickly as electronic literature has in the past several decades.

STATE OF THE PROJECT AT THE END OF THE ELMCIP GRANT AND PLANS FOR FUTURE DEVELOPMENT

At the conclusion of the overall ELMCIP project, we can safely attest that the ELMCIP Electronic Literature Knowledge Base has met and exceeded our initial goals. The Knowledge Base is now a vital component of the international electronic literature research infrastructure. It is serving not only the purpose we set out for it, but many other research and pedagogical applications as well. Though we continue to develop new features, the core elements of the knowledge model we have developed for documenting the field are in place; the platform is stable; more than 9,000 records have been developed; and new records are added daily. Our primary challenges going forward with the project are related to the maintenance and sustainability of the platform, the writing and editing of new and existing content, the continued development of new research outcomes from it, and the integration and sharing of content, methods, and standards with other related projects and databases. A challenge underlying this, and one familiar to anyone who has developed a digital humanities project of similar scale, is that it is a great deal more difficult to find funding to bring a well-developed project to its next stage than it is to fund a new project. The University of Bergen has committed to supporting the project at a minimal level for at least the next five years, but to continue the development of the Knowledge Base at the same level of activity

we have for the past three years will be difficult without a further infusion of external funding to support paid editorial and development staff.

We have a number of plans for the future development of the ELMCIP Knowledge Base, as described in the following pages.

Working with the CELL (Consortium for Electronic Literature) Network to develop documentation standards for electronic literature and to share data and best practices across related electronic literature projects. The Consortium for Electronic Literature is a network initiated by the Electronic Literature Organization, including a number of projects focused on documenting various aspects of electronic literature. In addition to ELMCIP, the network includes ELO, NT2, the Po.Ex Archive of Portuguese Experimental Literature, the Brown University Digital Literature Archive, the Australian Creative Nation electronic literature project, and others. This network is already working to produce a basic documentation standard for electronic literature, to create a name authority for the domain, and to implement cross-platform search that will allow any users of the participating databases to search all of the databases simultaneously.

Working to make the Knowledge Base sustainable over the long-term. We have secured some support to maintain the Knowledge Base from the University of Bergen and from Norstore, a Norwegian research infrastructure entity, to assure that the technical infrastructure of the Knowledge Base will be supported after the conclusion of the ELMCIP project. We also plan to work with CLARINO (Common Language Resources and Technology Infrastructure Norway) to integrate the Knowledge Base with/in Norwegian and European research infrastructure and to make our metadata portable and accessible to other researchers. The integration and use of the Knowledge Base within the curriculum at UiB is also important for the sustainability of the project.

Continuing to develop new research and development partnerships. We plan to work with research groups at other institutions and other partners who have an interest in specific projects in which the Knowledge Base can be a resource to develop mutually beneficial projects. For instance, the Knowledge Base can be used to set up collections of resources with a specific subdomain of the field—for instance, on Spanish-language electronic literature or locative literature. Rather than rebuilding a platform from scratch, these partners can use our infrastructure even as they develop their own research collections, while simultaneously

improving the records in the Knowledge Base. We also plan to work with partner research groups to exchange researchers, resources, and knowledge.

Developing a scalable model that can survive on very little resources or thrive with better funding. Although the University of Bergen Electronic Literature Research Group and the other ELMCIP partners will continue to apply for national and European grants to develop the Knowledge Base in a robust way, we are also planning for less-than-ideal scenarios. There are some basic technical needs for the maintenance of the platform that need to be met for the project to continue at all, and we have confidence that those can be managed locally. The growth, development, and refinement of the content, however, with or without funding, will depend on the increased participation of an engaged user community. The Knowledge Base has been conceptualized and developed as a collective knowledge system, so it depends on a participatory community to add, edit, and improve records.

Knowing that any platform has a lifespan, it is important to assure that the knowledge developed within that platform can be ported and endure. We are taking steps to assure that the data collected in the Knowledge Base will be archived in portable formats, so that if the project should at some point cease operations, it can be ported to other platforms and harvested by other open research platforms. There is no danger in the near term that the ELMCIP Knowledge Base will go away—on the contrary, signs are very positive for its continued successful development. But we want to make sure that all of our metadata is easily ported in formats that can work in other platforms. This is why the work of mapping fields to RDF frameworks and other under-the-hood work with metadata are so vital to the project.

Finding a long-term home for the Knowledge Base in a major research library or archive. In a research project such as ELMCIP, there is a tendency to think in terms of outputs and deliverables or in terms of a timespan that correlates to the span of a funded project. But in a project such as this, which is capturing and making accessible core aspects of a scholarly field, we need to be able to think and operate in longer time horizons. The ELMCIP Knowledge Base is very much still in an active research and development stage, and should be central to at least one more well-funded research project to reach its full potentiality as a platform for documentation, archiving, and research. Beyond that next stage, however, it should eventually be owned and maintained by an institutional entity that specializes in long-term archiving and preservation, one that can commit not to time horizons of three to five years, but decades, or even centuries. Eventually, it will be

our goal to place the project in the hands of a well-resourced research library or archive, so that the present period of experimentation in digital literary forms we have strived to document can be preserved for posterity.

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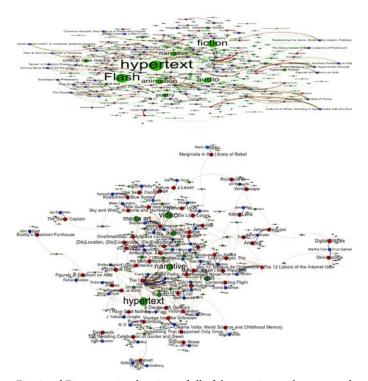


Fig. 6 and Fig. 7 are visualizations of all of the creative works presented at the 2002 and 2008 ELO Conferences, produced in Gephi. Nodes are tags sized by usage. By comparing the tags of works and critical writing presented in given years we can identify patterns of how technical, artistic, and theoretical interests in the field have changed over time.

APPENDICES

APPENDIX A

ALL PEER-REVIEW PUBLICATIONS EMERGING FROM THE ELMCIP PROJECT

The following is a list of peer-reviewed and scientific and creative publications that resulted from the ELMCIP project June 2010–August 2013, along with a few video documentaries. The project has thus far resulted in peer-reviewed publications including four special issues of journals and two books, as well as a digital anthology of electronic literature edited by members of the research consortium that has been published on the web and on USB drives. Additionally, the PIs and post-docs involved with the project published articles and book chapters in a number of peer-reviewed journals. In this list, we provide information about the ELMCIP-directed publications first, followed by the publications by individual PIs, followed by video documentaries.

I. PUBLICATIONS DEVELOPED DIRECTLY BY THE ELMCIP PROJECT

1) Simon Biggs, ed., *Remediating the Social* (ELMCIP, Bergen, 2012). Print ISBN: 978-82-999089-0-0, E-book ISBN: 978-82-999089-1-7. Permanent identifier: http://elmcip.net/node/4635. Open access.

CONTENTS OF REMEDIATING THE SOCIAL

- 2) Scott Rettberg, "Bootstrapping Electronic Literature: An Introduction to the ELMCIP Project" pp. 9–10. Permanent identifier: http://elmcip.net/node/4702. Open access.
- 3) Simon Biggs, "Remediating the Social" pp. 11–14. Permanent identifier: http://elmcip.net/node/4703. Open access.
- 4) Nick Montfort, "Programming for Fun, Together" pp. 15–19. Permanent identifier: http://elmcip.net/node/4631. Open access.

- 5) Roberto Simanowski, "The Compelling Charm of Numbers: Writing for and thru the Network of Data" pp. 20–27. Permanent identifier: http://elmcip.net/node/4705. Open access.
- 6) James Leach, "Creativity as a Social Relation" pp. 28–31. Permanent identifier: http://elmcip.net/node/4706. Open access.
- 7) Annie Abrahams, Artists' pages: "Huis Clos/No Exit Beyond Spectacle" pp. 32–33. Permanent identifier: http://elmcip.net/node/4640. Open access.
- 8) Romy Achituv, Artists' pages: "The Garden Library" pp. 34–35. Permanent identifier: http://elmcip.net/node/4675. Open access.
- 9) Johannes Auer, Rene Bauer, and Beat Suter, Artists' pages: "Search Trilogy" pp. 36–37. Permanent identifier: http://elmcip.net/node/4641. Open access.
- 10) Philippe Bootz, Artists' pages: "Small Uncomfortable Reading Poems" pp. 38–39. Permanent identifier: http://elmcip.net/node/4672. Open access.
- 11) Mez Breeze, Artists' pages: "_The_Tem(Cor)p(oral)_Body_" pp. 40-41. Permanent identifier: http://elmcip.net/node/4699. Open access.
- 12) Andy Campbell and Kate Pullinger, Artists' pages: "Duel" pp. 42–43. Permanent identifier: http://elmcip.net/node/2196. Open access.
- 13) J.R. Carpenter, Artists' pages: "The Broadside of a Yarn" pp. 44–45. Permanent identifier: http://elmcip.net/node/4671. Open access.
- 14) John Cayley and Daniel C. Howe, Artists' pages: "Common Tongues" pp. 46–47. Permanent identifier: http://elmcip.net/node/4677. Open access.
- 15) Shu Lea Cheang, Artists' pages: "Baby Work" pp. 48–49. Permanent identifier: http://elmcip.net/node/4648. Open access.

- 16) cris cheek, Artists' pages: "B A C K L I T" pp. 50–51. Permanent identifier: http://elmcip.net/node/4673. Open access.
- 17) Johannes Heldén, Artists' pages: "Natural History" pp. 52–53. Permanent identifier: http://elmcip.net/node/4551. Open access.
- 18) Brendan Howell, Artists' pages: "Exquisite Code" pp. 54–55. Permanent identifier: http://elmcip.net/node/941. Open access.
- 19) Aya Karpinska, Artists' pages: "Absurd in Public" pp. 56–57. Permanent identifier: http://elmcip.net/node/4700. Open access.
- 20) Donna Leishman, Artists' pages: "Borderline" pp. 58–59. Permanent identifier: http://elmcip.net/node/4679. Open access.
- 21) Judd Morrissey and Mark Jeffery, Artists' pages: "The Final Problem" pp. 60–61. Permanent identifier: http://elmcip.net/node/4676. Open access.
- 22) Jason Nelson, Artists' pages: "Textual Skyline" pp. 62–63. Permanent identifier: http://elmcip.net/node/4678. Open access.
- 23) Penny Travlou, "Rhizomes, Lines and Nomads: Doing Fieldwork with Creative Networked Communities" pp. 65–69. Permanent identifier: http://elmcip.net/node/4704. Open access.
- 24) Ruth Catlow, Marc Garrett, "DIWO: Do It With Others—No Ecology without Social Ecology" pp. 69–74. Permanent identifier: http://elmcip.net/node/4708. Open access.
- 25) Daphne Dragona, "The New Gameified Social" pp. 75–79. Permanent identifier: http://elmcip.net/node/4712. Open access.
- 26) Janez Strehovec, "Derivative Writing: E-literature in the World of New Social and Economic Paradigms" pp. 79–83. Permanent identifier: http://elmcip.net/node/4712. Open access.

- 27) Alexandra Saemmer, "Evaluating Digital Literature: Social Networks, Selection Processes and Criteria" pp. 83–88. Permanent identifier: http://elmcip.net/node/4719. Open access.
- 28) Romy Achituv, "Embodied Algorithms: On Space and Mobility as Structural Metaphors" pp. 89–92. Permanent identifier: http://elmcip.net/node/4707. Open access.
- 29) Loss Pequeño Glazier, "Stringing Disturbances in Poetic Array Spaces: Reading by Close Reading" pp. 93–97. Permanent identifier: http://elmcip.net/node/4718. Open access.
- 30) Roderick Coover, "Constructs of the Interactive Documentary Image in Inside/Outside, The Unknown Territories Project, and Estuary" pp. 98–101. Permanent identifier: http://elmcip.net/node/7288. Open access.
- 31) Chris Joseph, Christine Wilks, and Randy Adams, Artists' pages: "R3/\/\1X\/\/0RX" pp. 102–105. Permanent identifier: http://elmcip.net/node/4723. Open access.
- 32) Leonardo L. Flores, "Authorial Scholarship 2.0: Tracing the Creative Process in Online Communities" pp. 106–110. Permanent identifier: http://elmcip.net/node/4715. Open access.
- 33) Chris Funkhouser and Andrew Klobucar, "Players Only Love You When They're Playin': Community as Algorithm in Programmable Poetics" pp. 110–115. Permanent identifier: http://elmcip.net/node/4716. Open access.
- 34) Cécile Chevalier, "Rendezvous: A Collaboration Between Art, Research and Communities" pp. 116–121. Permanent identifier: http://elmcip.net/node/4709. Open access.
- 35) Natalia Fedorova, "Where is E-Lit in Rulinet?" pp. 122–124. Permanent identifier: http://elmcip.net/node/4713. Open access.

- 36) Yvonne Spielmann, "Thinking in Networks: Western/non-Western Interaction" pp. 125–128. Permanent identifier: http://elmcip.net/node/4720. Open access.
- 37) Donna Leishman, "Out of Place: Digital In-Grouping" pp. 129–133. Permanent identifier: http://elmcip.net/node/4717. Open access.
- 38) Daniel C. Howe, John Cayley, Jason Huff, and Mimi Cabell, "Invisible Participation: Language and the Internet" pp. 134–137. Permanent identifier: http://elmcip.net/node/5288. Open access.
- 39) Elena Cooper, "Of People Not Machines: Authorship, Copyright and the Computer Programmer" pp. 138–141. Permanent identifier: http://elmcip.net/node/4710. Open access.
- 40) Angela A. Thomas, "Remediating English Pedagogy: Nurturing Immersive, Complex and Creative Literary Experiences for Students in Contemporary Times" pp. 142–147. Permanent identifier: http://elmcip.net/node/4722. Open access.
- 41) Penny Florence, "Re-reading the Digital: An Inquiry Through Practice" pp. 147–150. Permanent identifier: http://elmcip.net/node/4714. Open access.
- 42) Mark Amerika, "Re:Mix" pp. 151. Permanent identifier: http://elmcip.net/node/4670. Open access.
- 43) Maria Engberg, Talan Memmott, David Prater, eds., *The ELMCIP Anthology of European Electronic Literature* (ELMCIP: Bergen, 2012). ISBN: 978-82-999089-2-4. Permanent identifier: http://anthology.elmcip.net. Open access.

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APPENDIX B

DISSEMINATION AND KNOWLEDGE EXCHANGE ACTIVITIES OF THE ELMCIP PROJECT PRINCIPAL INVESTIGATORS: CONFERENCES AND PUBLIC LECTURE PRESENTATIONS

"The ELMCIP Knowledge Base and the Formation of an International Field of Literary Scholarship and Practice." OLE Officina di Letteratura Elettronica; Naples, Italy 2011-01-20 - 2011-01-21.

"Poetry, Visuality, and Materiality: Roundtable. Poetry Beyond Text"; University of Dundee, Scotland, 2011-03-04 - 2011-03-05.

"Editing Electronic Literature: Roundtable." Electronic Literature Collection, Volume 2 Lansering; Bergen Public Library, Bergen, Norway 2011-05-02 - 2011-05-02.

"A Tale of Two Programs: Developing Curricula in Digital Culture." ELMCIP Seminar on Electronic Literature and Pedagogy; Karlskrona, Sweden, 2011-06-15 - 2011-06-18.

—with Eric Dean Rassmusen, "The ELMCIP Knowledge Base: a Platform for Documenting Electronic Literature." International Workshop on Databases and Bibliographic Standards for Electronic Literature; University of Bergen, Bergen, Norway 2011-06-19 - 2011-06-21.

"Practical uses of the ELMCIP Knowledge Base for French Authors and Researchers of Electronic Literature." Electronic Literature Knowledge Base Workshop; University of Compiegne, Compiegne, France, 2011-07-04 - 2011-07-04.

"Electronic Authorship: Collaboration, Appropriation, Community, and Practice." ISEA 2011: International Symposium on Electronic Art; Istanbul, Turkey, 2011-09-14 - 2011-09-21.

"Making Connections Visible: Building a Knowledge Base for Electronic Literature." ISEA 2011: International Symposium on Electronic Art; Istanbul, Turkey, 2011-09-14 - 2011-09-21.

"Building on the ELMCIP Knowledge Base: Networks and Platforms for Persistent Cultural Memory." Literature and the Digital Society; Paris 8 University 2011-10-06 - 2011-10-07.:

"The State of Electronic Literature in Europe: Roundtable on European Electronic Literature Networks." Mapping E-Lit: International Congress on Electronic Literature, University of Barcelona, Spain, 2011-11-25 - 2011-11-26.

"Mapping Electronic Literature Networks: The ELMCIP Knowledge Base and the Apparatus of Electronic Literature." Mapping E-Lit: International Congress on Electronic Literature; University of Barcelona, Spain, 2011-11-25 - 2011-11-26.

"Reflexivity in American Metafiction and Literary Hypertext." ELMCIP Seminar on Digital Poetics; University of Amsterdam, Netherlands, 2011-12-09 - 2011-12-10.

"Documenting Electronic Literature and Digital Art in an Open-Access Online Database." Invited presentation; School of the Art Institute of Chicago, USA, 2012-04-17.

—with Jill Walker Rettberg, "The ELMCIP Knowledge Base and Visualization Research Potentialities." Invited presentation; Electronic Visualization Lab, University of Illinois at Chicago, USA, 2012-04-18.

"Cultural Analytics and Electronic Literature." Invited presentation; Cultural Analytics Lab, University of California at San Diego, USA, 2012-23-2014.

—with Jill Walker Rettberg, "A Digital Humanities Platform for Electronic Literature Research." Invited presentation; Transcriptions Lab, University of California at Santa Barbara, 2012-25-2014.

—with Jill Walker Rettberg, "Distant Reading Strategies for Understanding the Field of Electronic Literature." Invited presentation; Stanford Literary Lab, Stanford University, 2012-04-26.

"Documenting Your Work: A Workshop on Using the ELMCIP Knowledge Base for Authors, Critics, and Teachers of Electronic Literature." Electrifying Literature: Affordances and Constraints, Electronic Literature Organization 2012 Conference, West Virginia University, Morgantown, USA, 2012-07-20 – 2012-07-23.

"Exhibiting and Curating Electronic Literature." Workshop on Exhibiting and Curating Electronic Literature, Hordaland Kunstsenter, Bergen, Norway, 2012-10-30.

"ELMCIP Research Project Goals, Results, and Impact." ELMCIP Remediating the Social Conference, Edinburgh, Scotland, 2012-11-01 - 2012-11-03.

"A Response to Nick Montfort's 'Programming for Fun, Together." ELMCIP Remediating the Social Conference Edinburgh, Scotland, 2012-11-01 - 2012-11-03.

"From the Avant-Garde to the Digital Vernacular." Keynote address. 2012 Oslo International Poetry Film Festival, Oslo, Norway, 2012-11-16 - 2012-11-18.

"Collective Memory and the Development of a Field: Building the ELMCIP Electronic Literature Knowledge Base." Keynote address. The Digital Subject: Questioning Hypermnesia - International and Transdisciplinary Conference, Paris 8, Paris, France; 2012-11-13 - 2012-11-13.

"Paratexts in the ELMCIP Knowledge Base." Exploring Paratexts in Digital Contexts, University of Bergen, Norway, 2012-12-06 - 2012-12-06.

—with Jill Walker Rettberg, "Mining the Knowledge Base: Exploring Methodologies for Analyzing the Field of Electronic Literature." Digital Methods Winter School 2013, Amsterdam, Netherlands, 2013-01-22 - 2013-01-25.

— with Patricia Tomaszek and Jill Walker Rettberg "Å bruke ELMCIPs kunnskapsbase i elektronisk litteratur i undervisningen". Fagleg-pedagogisk dag, University of Bergen, Norway, 2013-02-01.

"Developing a Robust Research Infrastructure for Electronic Literature: The Electronic Literature Knowledge Base." HASTAC 2013, York University, Toronto, Canada, 2013-04-25 - 2013-04-27.

"Network Based Fictions in the Public/Private Sphere." MIT8, MIT, USA; 2013-05-03 - 2013-05-05.

"Digital Humanities Projects for Electronic Literature." Cultural Dynamics and Creativity in Digital Europe, Kings College, London, UK, 2013-05-31.

—with Serge Bouchardon and Christine Wilks. "European Electronic Literature Showcase." The HERA Time and the Place Festival, Kings Place, London, UK, 2013.06.01.

—with Jill Walker Rettberg. "The Emergence of Electronic Literature: Library Exhibition at the University of Bergen Humanities Library." University of Bergen Electronic Literature Research Group, University of Bergen Humanities Library, Bergen. 2013-08-01 - 2013-09-30.

"An Emerging Canon? A Preliminary Analysis of All References to Creative Works in Critical Writing Documented in the ELMCIP Electronic Literature Knowledge Base." Chercher le texte, Electronic Literature Organization 2013 Conference, Paris, France, 2013-09-23 - 2013-09-28.

JILL WALKER RETTBERG, CO-INVESTIGATOR

"Nye medier, nye fortellinger: elektronisk litteratur." Kurs i forleggerforeningen, Bergen, Norway, 2010-10-26 - 2010-10-26.

"The Genealogy of a Creative Community: Why is Afternoon the 'Grandaddy' of Hypertext Fiction?" ISEA 2011: International Symposium on Electronic Art; Istanbul, Turkey, 2011-09-14 - 2011-09-21.

—with Eric Dean Rasmussen. "Student Research Using the ELMCIP Knowledge Base." ELMCIP Seminar on Digital Poetics and the Present; 2011-12-08 - 2011-12-10.

"Digital dannelse: Hva trenger vi å kunne for å delta i dagens digitale tekstkultur?." Ikke stykkevis og delt – grunnleggende ferdigheter og dannelse i norskfaget, Begen, Norway, 2012-03-23 - 2012-03-24.

"A Network Analysis of Dissertations About Electronic Literature." Chercher le texte, Electronic Literature Organization 2013 Conference, Paris, France, 2013-09-23 – 2013-09-28.

ERIC RASMUSSEN, RESEARCHER

Database Research and Publishing. ELMCIP Electronic Literature Publishing Seminar; 2011-03-28 - 2011-03-29.

Contributing to the ELMCIP Knowledge Base. ELMCIP Electronic Literature and Pedagogy Workshop; 2011-06-14 - 2011-06-17.

Significant Affects in Digital Literature. ELMCIP Seminar on Digital Poetics and the Present; 2011-12-08 - 2011-12-10.

IP 2: BLEKINGE INSTITUTE OF TECHNOLOGY

Cabaret Voltage, art and literary performance event in Karlskrona in June 2011. Funded by Karlskrona municipality's culture grant Öppna Sinnet. Organization and participation by Talan Memmott, Maria Engberg and David Prater.

MARIA ENGBERG, PRINCIPAL INVESTIGATOR

"Discussion of processes and issues for ELMCIP Anthology." ELMCIP Seminar on Electronic Literature Communities, Bergen, Norway, 2010.09.20 - 2010.09.21.

—with Jay David Bolter. "Digital Literature and the Modernist Problem" Futures of Digital Studies 2010, University of Florida, Gainesville, USA, 2010.02.25 - 2010.02.27.

"Polyaesthetics in Digital Literary Arts: Steve Tomasula's TOC and Multimedia Fiction." Association for the Study of the Arts of the Present, Trier, Germany, 2010.10.28 - 2010.10.30.

"Playful Reading and/as Research." Centre de recherches en littérature et cognition (C.R.L.C., EA 1569) Concepts pour les études littéraires / Concepts for literary studies. Université Paris 8, Paris, France, 2011.03.

"Taking My Time: Anxiety of Narrative and Temporality in Steve Tomasula's TOC and VAS." The International Society for the Study of Narrative conference, St Louis, USA, 2011.04.07 - 2011.04.10.

"The Ever-Moving Horizon of Expectations: A Problem of 'Medium-Identification." Adaptation and Media Transformations: Intermedial Studies Symposium Series #3. Linneaus University, 2011.05.

"Digital litteratur" Presentation at release event and exhibition at Galleri 21 Malmö, for a special issue of poetry magazine Pequod, 2011.06.

"The Anxiety of Literature in the Age of Social Media and the Problem of Reading." University of Bayreuth, 2011.07.

"Digital Literature: Avant-garde, experimental and the born-digital" University of Bayreuth, 2011.07.

"Literature in the Digital Age, or: the Challenges of Obsolescence and Beginnings." The Future of Literature in an Age of Digital Media symposium Georgia Tech, Atlanta, 2011.10.

"Touch and Gesture as Aesthetic Experience: Performing 5 Apps." ELMCIP Seminar on Digital Textuality with/in Performance, Bristol, UK, 2012.05.03 - 2012.05.04.

—with Talan Memmott. "Presentation of ELMCIP European Anthology of Electronic Literature." ELMCIP Remediating the Social Conference Edinburgh, Scotland, 2012.11.01 – 2012.11.03.

"The Unexplored Link: Electronic Literature and Interaction Design." E-Poetry 2013, London, UK, 2013.06.17 - 2013.06.20.

TALAN MEMMOTT, CO-INVESTIGATOR

"Editorial and Curatorial Practices in Electronic Literature" E-poetry festival and conference, University of New York at Buffalo, USA, 2011.05.17 - 2011.05.20.

"Alternative Avenues in Digital Poetics and Post-Literary Studies." Panel. Electrifying Literature: Affordances and Constraints, Electronic Literature Organization 2012 Conference, West Virginia University, Morgantown, USA, 2012-07-20 - 2012-07-23.

"Presentation of ELMCIP European Anthology of Electronic Literature." Workshop on Exhibiting and Curating Electronic Literature, Hordaland Kunstsenter, Bergen, Norway, 2012-10-30.

DAVID PRATER, RESEARCHER

"Interrogating Electronic Literature" with Talan Memmott. A documentary video-essay. Ljubljana, September 2011.

—with Maria Engberg. "Flashpoints: Reading Electronic Literature as a (Neural) Metaphor for Creativity." ELMCIP Seminar on Digital Poetics and the Present, University of Amsterdam, 2011.11.109 - 2011.11.10.

"Why 'But is it e-lit?' Is a Ridiculous Question: The Case for Online Journals as Organic, Evolving Works of Digital Literature." ELMCIP Seminar on Digital Textuality with/in Performance, Bristol, UK, 2012.05.03 - 2012.05.04.

IP 3: UNIVERSITY OF AMSTERDAM

YRA VAN DIJK, PRINCIPAL INVESTIGATOR

Research visit 2010-2011 to CRCA (Center for Research in Computing and the Arts) at the UCSD presenting the ELMCIP project and European digital literature to the US scholars in the field.

Authored the news article "Nieuwe digitale anthologie" in NRC Handelsblad published 12.05.2011, which has generated much interest for Dutch and European Digital literature.

Yra van Dijk has also been participating in the OOR HERA project, discussing ELMCIP-related digital authorship in the context of their study of authorship and originality.

Started authoring a column on digital literature in the magazine Awater, and one in the digital edition of literary journal De Gids. Both give the opportunity to point to networks and to European developments in (the study of) digital literature.

The Amsterdam seminar on digital poetics gave rise to collaborations with various literary networks in the Netherlands, like the SLAA, de Balie and Perdu. In the scholarly realm, partnership with the research group 'Digital Emotions' (led by Ellen Rutten of the MAW HERA project) was a result of the research done for ELMCIP.

In 2013, Yra van Dijk opened the academic year of the Faculty of Humanities with a lecture on digital poetics and memory.

IP 4: UNIVERSITY OF LJUBLJANA

JANEZ STREHOVEC, PRINCIPAL INVESTIGATOR

"Tactile and Augmented Perception of Digital Literature." 13th Annual Conference of Society for Phenomenology and Media, University of Freiburg, Germany, 2011.03.17.

"E-Literature and the New Social Paradigms." ELMCIP E-Literature and New Media Art Seminar, Ljubljana, Slovenia, 2011.09.22 - 2011.09.23.

"New Media Poetry." 56th Belgrade Book Fair, Belgrade, Serbia, 2011.20.29.

"E-Literature and the Social." Electrifying Literature: Affordances and Constraints, Electronic Literature Organization 2012 Conference, West Virginia University, Morgantown, USA, 2012-07-20 – 2012-07-23.

"Derivative Writing: E-literature in the World of New Social and Economic Paradigms." ELMCIP Remediating the Social Conference Edinburgh, Scotland, 2012-11-01 - 2012-11-03.

IP 5: UNIVERSITY OF JYVÄSKYLÄ

RAINE KOSKIMAA, PRINCIPAL INVESTIGATOR

Research project "New Forms of Reading." Presentation of ELMCIP results. Reading 2.0 seminar, University of Tampere, Finland, 2011.03.25.

"Transforming Narrative." Media in Transition 7 Conference, MIT, USA, 2011.5.13 - 2011.5.15.

"Electronic Literature Publishing Survey Results." Nordic Network of Digital Culture seminar, IT University of Copenhagen, Denmark, 2011.10.24 - 2011.10.25.

DDDL, European Network of Digital Literature, invited participant in the founding meeting, University Paris 8, France, 2011.10.5 - 2011.10.6.

Public lecture on new forms of reading, panel discussion participant "Future of Literature." Joensuu Literature Festival, Joensuu, Finand, 2011.9.16 - 2011.9.18.

GIOVANNA DI ROSARIO, RESEARCHER

Dissemination of ELMCIP results; comparative data gathering for the Publishing E-Lit report; networking with the international electronic poetry scholars and practitioners. E-poetry festival and conference, University of New York at Buffalo, USA, 2011.05.17 - 2011.05.20.

"E-formes 4: Les E-Formes face à l'éphémère numérique", University of Jean Monnet - St. Etienne, France, 2011.12.01 - 2011.12.013.

"Literature in Digital Society" University Paris 8, 2011.10.6 - 2011.10.8.

DDDL, European Network of Digital Literature, invited participant in the founding meeting, University Paris 8, France, 2011.10.5 - 2011.10.6.

Dissemination of ELMCIP results. Mapping E-Literature Conference, University of Barcelona, Spain, 2011.11.24 - 2011.11.25.

Giovanna di Rosario is also responsible for a regular column on digital literature for the Italian newspaper "paneacqua": http://www.paneacqua.eu/

IP 6: UNIVERSITY COLLEGE FALMOUTH JEROME FLETCHER, PRINCIPAL INVESTIGATOR

HERA Knowledge Transfer Conference, Zagreb, Serbia, 2011.06.30.

"Trac/tExt/ract" E-poetry festival and conference, University of New York at Buffalo, USA, 2011.05.17 - 2011.05.20.

"In the Event of the Digital Text" DDDL consortium meeting. Paris 8 University, France, 2011.10.5 - 2011.10.6.

"The Author's Voice." Mapping E-Lit: International Congress on Electronic Literature, University of Barcelona, Spain, 2011-11-25 - 2011-11-26.

"Con/Tact/ile." ELMCIP Seminar on Digital Textuality with/in Performance, Bristol, UK, 2012.05.03 - 2012.05.04.

"Digital Practice as Research." ELMCIP Electronic Literature Pedagogy seminar, Blekinge Institute of Technology, Karlskrona, Sweden, 2011.06.15 - 2011.06.17.

IP 7: UNIVERSITY OF EDINBURGH (EDINBURGH COL-LEGE OF ART)

SIMON BIGGS, PRINCIPAL INVESTIGATOR

Presentation of an interactive installation by the PI as part of the internationally curated "First Exhibition of Electronic Literature" in Italy at the Palazzo delle Arti Naples, Italy, 2011.

Presentation by the PI about the ELMCIP project at the "Connected Communities conference", University of Newcastle, UK, 2011.

Presentation by the PI about the ELMCIP project . ISEA 2011: International Symposium on Electronic Art; Istanbul, Turkey, 2011-09-14 - 2011-09-21.

Performance of a new electronic literature work. ELMCIP E-Literature and New Media Art Seminar, Ljubljana, Slovenia, 2011.09.22 - 2011.09.23.

Presentation of interactive dance, generative text and audio performance "Bodytext" (with Sue Hawksley, dance, and Garth Paine, sound), Gaming the Game conference, Mondavi Theatre, University of California Davis, USA, 2012.

Presentation of interactive performance work "Conjunctions and Prepositions." Cyber Arte Cultura: A Trama das Redes conference, Museu Vale, Vila Velha, Brazil, 2013.

MAGNUS LAWRIE

"Sharing and Sustainability across Institutional and Self-instituted Form" Media, Knowledge & Education: Cultures and Ethics of Sharing conference, University of Innsbruck, Austria, 2011.11.

AUTHOR BIOGRAPHIES

SIMON BIGGS

Simon Biggs is a media artist, writer and curator with interests in digital poetics, interactive environments and interdisciplinary research. His work has been presented internationally, including the Tate, Pompidou, Academy de Kunste, Maxxi, Macau Arts Museum, Walker Art Center, Art Gallery of New South Wales. He has spoken at numerous conferences and universities, including ISEA, E-Poetry, SLSA, ELO, and Cambridge, Brown, Cornell, UC Davis, UC Santa Barbara, Paris 8, Sorbonne, Bergen Universities. Publications include *Remediating the Social* (ed, 2012), *Autopoeisis* (with James Leach, 2004), *Great Wall of China* (1999). He is Professor of Interdisciplinary Arts, University of Edinburgh.

MARKKU ESKELINEN

Markku Eskelinen is an independent scholar, experimental author, and according to *The Review of Contemporary Fiction*, "easily the most iconoclastic figure on the Finnish literary scene." He is also one of the founding editors of Game Studies, the international journal of computer game research, and the series of *Cybertext Yearbooks*. His most recent publication is *Cybertext Poetics: The Critical Landscape of New Media Literary Theory* (Continuum, 2012).

MARIA ENGBERG

Maria Engberg is an Assistant Professor at Blekinge Institute of Technology (BTH) in Sweden and an Affiliate Researcher at the Augmented Environments Lab at Georgia Institute of Technology (USA). She is the Co-Chair of the Arts, Media and Humanities track of ISMAR (International Symposium for Mixed and Augmented Reality). Her research interests include digital literature and culture, digital media design, augmented / mixed reality, and media theory.

RAINE KOSKIMAA

Raine Koskimaa works as a professor of contemporary cultural studies at the Department of Art and Culture Studies, University of Jyvaskyla, Finland. He

conducts research in the fields of digital textuality, programmable media, and game studies. He has published widely around the issues of digital literature, game studies, and narratology. He is the co-founder and co-editor of the *Cybertext Yearbook* and a member of the Review Board of *Game Studies* and the Literary Advisory Board of the Electronic Literature Organization. His research currently focuses on time and temporality in digital fictions.

JILL WALKER RETTBERG

Jill Walker Rettberg is Professor of Digital Culture in the Department of Linguistic, Literary, and Aesthetic Studies at the University of Bergen, Norway. Her main research interest is how we tell stories online, and she has published on electronic literature, social media, blogging, self-representations online, personal visualizations, and the digital humanities. She has blogged her research at http://jilltxt.net since 2000, and her book *Blogging*, published in a second edition by Polity Press in 2013, is a key text in social media studies. She is also the co-editor of *Digital Culture*, *Play and Identity: A World of Warcraft Reader* (MIT Press 2008).

SCOTT RETTBERG

Scott Rettberg is Professor of Digital Culture in the Department of Linguistic, Literary, and Aesthetic Studies at the University of Bergen, Norway. Rettberg is the project leader of ELMCIP. Rettberg led the establishment of the Nordic Digital Culture Network, a Nordplus network, in 2008. Rettberg previously directed the new media studies track of the literature program at Richard Stockton College in New Jersey. Rettberg is the author or coauthor of novel-length works of electronic literature, combinatory poetry, and films including *The Unknown*, *Kind of Blue, Implementation, Frequency, Three Rails Live, Toxicity*, and others. His creative work has been exhibited both online and at art venues around the world. Rettberg is the cofounder and served as the first executive director of the Electronic Literature Organization.

JANEZ STREHOVEC

Janez Strehovec is Associate Professor of Theories of New Media from the University Ljubljana (Slovenia). He is the author of seven scientific monographs, published in Slovenia. His English essays are published in the *Journal of Popular Culture*, *CTheory*, *Technoetics Arts*, *Digital Creativity*, *Drunken Boat*, *Afterimage*, and *Cybertext Yearbook*. He has chapters in books such as Roberto Simanowski et al. *Reading Moving Letters*, and Philippe Bootz and Sandy Baldwin (eds.): *Regards Croises. Perspectives on Digital Literature*. Currently, he is working on his new book, titled *Text as a Ride*.

PATRICIA TOMASZEK

Patricia Tomaszek is recipient of the 2010 University of Bergen PhD-scholarship at the Department of Linguistic, Literary, and Aesthetic Studies. She completed her M.A. in Literature, Culture, and Media at the University of Siegen in Germany, participated in a study abroad at Brown University supported by the German Academic Exchange Service, and has assisted the Electronic Literature Organization in a project on archiving electronic literature. From 2006 to 2010, Patricia worked as an academic assistant in the research group "Literature in Nets. Net Literature" at the Cultural Studies Center "Media Upheavals," based at the University of Siegen in Germany.

PENNY TRAVLOU

Penny Travlou is a Lecturer in Cultural Geography and Theory at the Edinburgh School of Architecture and Landscape Architecture, University of Edinburgh. Her research is interdisciplinary, focusing on the politics of public space, urban theory, visual & digital culture, transdisciplinarity, and ethnography. Her fieldwork looks at how creative networked communities of digital practitioners form within transnational and transcultural contexts in a globalized and distributed communications environment. She has also been Principal Investigator on the UK Arts and Humanities Research Council-funded project "Creation and Publication of the Digital Manual: authority, authorship and voice."

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