allow today's spectacular events in financial markets worldwide. Soon after Wall Street closes the Far East financial markets start to open (the Tokyo stock exchange opens at 2 a.m. CET) and the staged spectacle indexed in the Dow Jones and composite NASDAQ, as well as in the European equivalents (such as the DAX and FTSE), continues with events measured by the Hang Seng, Shanghai Composite index, the Japanese Nikkei and other Asian indices.

In terms of content, we are the contemporaries of a visible transformation of an (industrial) economy focused on material production into an economy based on services and finances. To put it simply: the latter is a far more abstract economy, where the exchange of commodities is replaced by a series of new financial instruments, including derivatives; more than with stable artefacts, we deal with unstable concepts, ideas and, of course, code. In drawing attention to this paradigm shift toward the abstract, let us point out that those involved in the analysis of contemporary culture and art are no strangers to the above. If there is any field that is constantly subject to destabilization, volatility, introduction of news, hybridisation, mixing and remixing, the promotion of (exchange) value and the rapid decline of particular trends (and value), it is contemporary art (including e-literature), in which the object's dematerialisation plays a similar role to that played in the field of the economy, by the transition from a (material) production economy to an economy of (far more abstract) financial products and services.

However, contemporary art did not just passively follow the changes generated by social and economic shifts but accomplished a pioneering work itself. Just think of Marcel Duchamp and his ready-mades, that drew attention to the relevance of the author-brand (as a potential logo) in the field of contemporary art, as well as the broader effects of the institution of art as the one having the mechanisms to promote the exchange-value of certain products and push others to the margins. That artistic context, and its formation through branding, allows an ordinary object manufactured for a specific use to enter a completely new and different life; this was Duchamp's message with his 1917 'urinal project', *Fountain*. As for theory, Boris Groys' work *Über das Neue* (1992) is one of the rare ones that followed the economy of art in the sense that this field is constantly subject to valuations and devaluations as well as dynamic transitions between profanity and valuable (cultural) archives.

Flexibility in the field of contemporary art and e-literature finds it easy to follow the dynamics of the network-supported economy of financial markets, where new financial products bring dynamics into the spectacle of the global, 24-hour market mentioned earlier. Due to the fact that – at least in the short-term – financial markets allow significantly faster and larger profits, they generate new products that attract buyers and speculators. Hedge funds and derivatives (options, futures, contracts) have a special place and bring a new quality to said markets. This is particularly true for trading in derivatives, the price of which depends on the underlying asset (commodities, currencies and securities), reference rate or index they refer to. There are situations when hedge brokers try to reduce the risk whilst speculators increase it in order to maximise their profits. In short, it is a situation where we have an indisputable value basis that we use to increase our assets in the future (or secure them).

With some works of contemporary and, in particular, new media art one can notice that artists also focus on the 'artistic underlying asset' and refer to it in order to secure their interests and even make a profit. They produce derivatives in the sense that they refer to the indisputable value of the underlying reference work (taken from the high-valued artistic and literary tradition), which indirectly – through its 'branding value' – also guarantees

the branding of their derivatives; indeed, 'a question about the value of a work is a question about its relation to traditional examples and not to extracultural profanities' (Groys). Let us mention the Slovenian new media artist Marko Peljhan, who, in collaboration with Carsten Nikolai and Canon Artlab, designed the *Polar* project (2000), thus entering into a creative dialogue with Stanislaw Lem's novel *Solaris* (1961). Despite being rooted in a significantly transformed world of the information society and new stories, *Polar* strives to establish contacts with the unquestionably recognised *Solaris*.

The hedgers (brokers of so-called hedge funds) speculate (in order to secure their investments) and so do artists; they keep counting on the spectator, reader or listener who is not here yet but who will add surplus value to their product in the future. They bet on the future, they live by and in their insecurity, they speculate and bet on it; they are convinced that the course of events will add surplus value to their work. Their option contract refers to some point in the future; they reckon the situation in the market or art scene will change toward their interest. They design works oriented to the new and at the same time their basic intention refers to the institution of art, to its 'approved' works (applied as quote, remake, remix), which gives them a certain amount of security. For example, Natalie Bookchin's art project *The Intruder*, produced in the instant and insecure media of artistic video games, establishes a reference to Borges' novel *La Intrusa* in order to provide added value to an uncertain, new media work (a so-called 'mod', e.g. artistically derivative of a commercial video game).

Bookchin's work can be understood as a contribution to a broader concept of e-literature, which extends beyond hyperfiction towards different genres (from video games to performance) positioned at the intersections of e-literature and new media art. In this domain we are contemporaries of different e-writers' strategies for drawing attention to their work and inventing their own economies. Many of them decide, for example, to engage writing and programming in the sense that they refer to the indisputable value of the underlying reference work, generated by a well-known artist. Here we can mention several authors, from Simon Biggs and Neil Hennessy to Alison Clifford and J. R. Carpenter, whose e-literary pieces relate to predecessors' texts taken from the world of literature-as-we-know it. Simon Biggs' *The Great Wall of China* not only borrows Kafka's title, but appropriates the whole body of his text, taking the multiple individual building blocks that make up the story and feeding each word into a generative computer program that re-assembles them into new sentences. Hennessey's *Jabber* produces nonsense words that sound like English words, in the way that the portmanteau words from Lewis Carroll's 'Jabberwocky' sound like English words. The key reference of Jabberwocky is Carroll's nonsense verse poem from his 1871 novel *Through the Looking-Glass*, and *What Alice Found There*, while Alison Clifford in her *The Sweet Old Etcetera* relates the work to e. e. cummings' poetry, which has some poetry procedures (e.g., use of parentheses, capitalisation, and spacing on the page) that have impacted several authors of e-poetry (e.g. Komninos Zervos, Mez, et al). In J. R. Carpenter's *Along the Briny Beach* quotations from Elizabeth Bishop, Joseph Conrad, Lewis Carroll, and Charles Darwin are employed, as well as the code of another e-poetry generator (Nick Monfort's *Taroko Gorge*). Such an intrinsic link to Monfort's poetry generator contributes to an understanding of the e-literature world in terms of a field that is becoming self-referential and autopoetical.

The decision of e-literature writers to write texts that can be considered as roughly analogous with derivatives on financial markets and thus to some speculative and abstract activity, is certainly not pejorative. Rather than being considered imitation,

such an activity reflects the nature of an e-literary area that is full of uncertainty, in the sense that authors, once they begin creating such works, always find themselves facing the unknown and searching for ways to highlight in them something that will attract readers and critics. Connecting to other works, in the form of 'derivative writing', allows them to add value to their works, which often implies an entry into the valuable archives of literature and art, whose common denominator is a surplus in the field of creativity and innovation. Thus, derivative writing presupposes writing, which deploys such an underlying asset (which has a big part in the attention economy) to help the author to enter the valorised archives of the e-literary world.

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EVALUATING DIGITAL LITERATURE: SOCIAL NETWORKS, SELECTION PROCESSES AND CRITERIA

Alexandra Saemmer

Introduction

The first experiments in digital literary forms started as early as the 1960s. From then, up to the mid-90's, was a period that, according to Chris Funkhouser (2007), can be considered as a 'laboratory' phase. The rise of the Internet has resulted in the proliferation of creative proposals. The first involves indexing creative works in the form of databases, sometimes giving access to hundreds of works without any hierarchical order. Since 2000, digital literature has been experiencing a new phase, marked by the creation of anthologies. Over the years, the evaluation and selection criteria have proved to be as problematic as they are necessary for these projects. The main issue of this paper is to provide a critical discussion of these criteria.

I will first compare the corpus of two founding initiatives, i.e. collections 1 and 2 edited by the Electronic Literature Association (ELO)[1] and the 'improved sheets' published online by the Canadian nt2 laboratory[2], in order to bring out a list of works commonly considered as 'worthy' by these communities. I will then put the positions of four important players of this field into perspective: Bertrand Gervais (director of the nt2 lab), Scott Rettberg (co-editor of the first ELO collection and leader of the European ELMCIP project devoted to digital literature[3]), Laura Borràs (co-editor of the second ELO collection and director of the Hermeneia research group[4]) and Brian Kim Stefans (co-editor of the second ELO collection, and author of various works presented in the ELO collections and nt2 'improved sheets'). In spring 2011, I questioned them about their initiatives and their selection criteria. In the 'crossed corpus' of ELO and nt2 works, I will finally identify these selection criteria through a semiopragmatic methodology.

Two anthologisation initiatives

Within the Electronic Literature Organization, the Electronic Literature Directory is responsible for the building of a corpus, which is presented on the website in the form of descriptive sheets. Everyone may participate in the project by proposing a database entry. An editorial board then decides to validate the said sheets or not. In order to facilitate the selection, a list of the main genres of digital literature is proposed on the website, which includes:

• hypertext poetry and fiction

• kinetic poetry

• computer-based art installations 'which ask viewers to read them or otherwise have literary aspects'

• chatterbots

• interactive fiction

• novels that take the form of emails, SMS or blogs

• poems and stories 'that are generated by computers', either in an interactive way or based on set parameters

- collaborative writing projects that allow readers to contribute to the text of a work

- online literary performances 'that develop new ways of writing'

The Directory underlines the role of the computer as a creative device and thus excludes literary forms in which the computer is only used as a publishing tool. However, the definition of a literary value based on its 'predominant literary aspects' seems somewhat tautological.

The evaluation system for the ELO database is intended to be 'networked'[5]. Each sheet is signed by an author and approved by the editorial board. Readers can leave comments to discuss its content: 'The critical discussion around works, by other creators as well as critics, allows the work's value to be recognised and establishes an e-lit author's credentials', the association affirms.

A second ELO initiative makes the issue of the creation of an anthology even more explicit, as the association has already published two 'collections' of digital literature (one in 2006 and the other in 2011). Although they are entirely available online, they have also been released on DVD. N. Katherine Hayles, Nick Montfort, Scott Rettberg and Stephanie Strickland selected the first forty works. The second volume was edited by Brian Kim Stefans, Laura Borras, Rita Raley and Talan Memmott[6].

In 2002, the Canadian nt2 laboratory launched another major initiative in this field[7]. The 'répertoire des arts et littératures hypermédiatiques[8]' currently hosts more than 3000 files containing a brief description of each work, as well as screenshots and indexing terms. The entries are written by the lab members. Readers cannot leave comments – they can only suggest a work. Bertrand Gervais explains that in 2002, it seemed possible to establish a thorough index of digital arts and literature. In 2006, the number of productions literally boomed, one had to give up this objective. Therefore, it seemed more interesting to focus on the effects of 'institutionalisation' induced by the directory. The lab decided to give new impetus to these effects by adding analytical components and evaluation criteria. In order to show that 'all these works are unequal', the committee came up with an idea, i.e. to identify 'the hundred best works'.

These works are selected by a committee (which consists of the general director of the lab and its coordinator, its technical director and 4 to 6 students) and presented within the directory in the form of 'improved sheets'[9]. These files include a video screenshot taken during a running of the work, a bio-bibliography and a critical corpus of articles and references showing that the work has already been 'approved' by peers.

As I compared the list of 121 works published in the ELO collections and the 142 'improved sheets' edited by the nt2, I got a 'cross corpus' approved by both communities:

- A corpus of works selected as part of the two anthologisation initiatives: Robert Kendall, *Faith*; Donna Leishman, *Deviant: The Possession of Christian Shaw*; Michael Mateas and Andrew Stern, *Façade* ; M.D. Coverley, *Accounts of the Glass Sky* ; Daniel C. Howe and Aya Karpinska, *open. ended*; Stephanie Strickland, Cynthia Lawson Jaramillo and Paul Ryan, *slippingglimpse*; Reiner Strasser and M.D. Coverley, *ii -- in the white darkness: about [the fragility of] memory*; Brian Kim Stefans, *The Dreamlife of Letters*; Michael Joyce, *Twelve Blue* ; J. R. Carpenter, *Entre Ville, in absentia*; William Poundstone, *Project for Tachistoscope*; Patrick-Henri Burgaud, *Jean-Pierre Balpe ou les Lettres Dérangées*.

- A corpus of authors selected as part of the two initiatives for different works: Dan Waber, Jim Andrews, Stuart Moulthrop, Eugenio Tisselli, Annie Abrahams, Jason Nelson, Shelley Jackson, David Jhave Johnston, Kate Pullinger, Alan Bigelow, David Clark. The divergence between the selections of works can be partly explained by the different selection processes: ELO made a call for proposals and physically hosts the works on the website of the association, whereas the nt2 directory only redirects to the servers on which the works have been published.

Despite these different editing strategies, the number of commonly approved works is quite impressive. What have been the selection criteria, and how do the four players situate these initiatives in relation to the concepts of 'legitimisation', 'institutionalisation' and 'canonisation' often associated with anthology projects?

Legitimisation, institutionalisation, canonisation?

In her seminal book, Astrid Ensslin (2007) traces the history and evolution of the concept of canonisation. In the field of literature, the term refers to a compilation of works that are considered as normative during a certain period. Although tastes and values change, a canon is defined by its persistence throughout this approval period (Assmann 1987). Digital literature resists any claim for physical permanence because of the lability of the device (see Saemmer 2009, Bootz 2008). The very definition of the term 'canon' therefore needs to be reconsidered. According to Brian Kim Stefans, preservation projects may positively account for the institutional dimension of canonisation. Scott Rettberg emphasises the involvement of the ELO in the preservation of the works presented in the collections. Bertrand Gervais also agrees to use this meaning of the term 'canonisation' for the nt2 initiatives.

Moreover, the four players particularly focus on the issue of 'legitimisation' raised by the anthologies. This 'legitimisation' requires a big enough audience that the digital literary works be recognised by peers (Viala 1993: 11-31). According to Scott Rettberg, digital literature has gained recognition in the academic field. However, it is still largely absent from the curricula of primary and secondary schools (See the chapters in *Reading moving letters* (2009) dedicated to the issue of the teaching of electronic literature). Anthologies might make up for this lack by making these works 'exist' (Scott Rettberg), proposing definitions (Laura Borràs) and highlighting the most 'convincing' works (Bertrand Gervais).

This valuation is not exclusively based on selection processes. It also includes the creation of a critical apparatus, pedagogical skills (see ELMCIP project) and partnerships with institutions (libraries and museums). It sometimes brings up identity issues. Bertrand Gervais explains that the selection of works proposed by the nt2 is also driven by the wish to promote digital literature in the French language. Laura Borràs fights for the creation of an anthology of Catalan digital literature. An anthology of European works has been edited as part of the ELMCIP project.

Literary and aesthetic selection criteria

Which literary and aesthetic criteria have been considered for the ELO and nt2 anthologies? A first criterion is based on the technological aspects of digital literature. Laura Borràs affirms that the variety of devices used by the authors (desktop computers, touchscreen tablets, 3D projection spaces, etc) has played

an important role in the selection of works for the second ELO collection. Scott Rettberg emphasises the importance of the close relationship between the linguistic components and procedural properties of the computer, which may 'cause provocative reading experiences'. This assertion also raises the question of the poetic value of the computer code (see Wardrip-Fruin 2009: 35).

According to Bertrand Gervais and Laura Borràs, the 'representativeness' of a work should also be defined in relation to the history of the forms and genres in 'paper' literature. Many 'historic' e-lit works are closely linked to various twentieth century Avant-gardes, which had been defying literary traditions and genres long before the creation of the computer.

Brian Kim Stefans insists, in particular, on the importance of the 'aesthetic quality' of a work as a selection criterion. According to him, this quality has nothing to do with 'beauty'. Stefans cites the opportunity to create 'non-illustrative' interactions and animations and generate 'tensions' between semiotic systems. In animated poetry, word and movement could, for example, contradict each other instead of forming redundant couplings: a word conveying ideas of beauty and grace may also burst and induce violent motions. This 'mismatch' cannot be conceived outside the reading contexts of a work. What is more, it sometimes has political connotations.

By challenging the reader's expectations, some authors indeed propose an implicit reflection on the specificities of media discourse, on its ravishing or alienating, immersive or exhilarating nature. These 'meta-theoretical' or 'reflexive' dimensions constitute the ultimate evaluation criterion for the works mentioned by the four players, even if some of them may well be misused. Brian Kim Stefans points out that a 'canon should be a corpus of works aimed to give literary inspiration, not theorise new concepts'.

To what extent are the works jointly selected by ELO and nt2 representative of these criteria? What methodologies could be used to identify these criteria in these works?

Methodological elements for an evaluation of digital literary works

The unexpectedness criterion in text animation

As stated by Brian Kim Stefans, digital literature often experiments with unexpected combinations of text, movement and 'manipulation' gestures. In order to situate this unexpectedness in the cross-referenced corpora of works, I will resort to a semio-pragmatic methodology that borrows some of its main concepts from Reception theory.

The objective of Reception theory, as stated by Wolfgang Iser (*Der Akt des Lesens* 1976), is to study the reading practice as an individual and social co-construction of meaning. On the one hand, the act of reading is influenced by a set of individual and socially shared elements, which form the reader's 'horizon of expectations' (Jauss 1990). On the other hand, the act of reading is guided by the 'repertories' and 'strategies' (Iser 1976: 127) of the text and 'dispositif' ('device') (Jeanneret/Souchier 2008), which anticipate a mode of reception.

In animated texts, the same support combines texts with icons. In order to circumscribe the (un-)expectedness of text animation, it is important to consider the expectations potentially raised by the textual elements, and the action potential induced by motion. As pointed out by Brian Kim Stefans, there seems to be

a 'tension' between motion and text in many works of the corpus. But how can we situate more precisely the action potential of a motion – that is to say its potential reception by the reader – in order to evaluate the potential unexpectedness of such an intersemiotic coupling?

Dan Waber is featured in both the first ELO collection and the 'improved sheets'. His collection of poems entitled *Strings* is based on handwritten words set in motion. In the animation 'haha'[10], the static word is first characterised by sound iconicity: the repetition of the same phonemes is supposed to reproduce the sounds of human laughter. The movement seems to emphasise the representation of the referent: the word 'haha' sometimes moves cyclically from left to right, slowing down before coming back with force; the letters are growing and shrinking at the same pace, following a delta-shaped movement. At first sight, this animation may be considered as redundant, and does not fit with the intersemiotic tension and indeterminacy criteria pointed out by Brian Kim Stefans. Now let us examine it a little bit closer.

While visual representation seems to imply a resemblance to things, linguistic reference seems to exclude it. 'We show through resemblance, we speak through difference', states Michel Foucault (1973: 39). This radical assertion, which recalls the way Ferdinand de Saussure defines the arbitrariness of the linguistic sign, must obviously be further qualified. One of the elementary forms of textual 'iconicity' is based on the assumption that the 'sound' system could reflect the 'meaning' system: onomatopoeia seems indeed close to its extralinguistic referent. A secondary form of iconicity in language is visual: the font and colour of a text can be used and perceived on an iconic level. On digital supports, the text is also characterised by motion.

The semiotic approach to music, developed at the French MIM laboratory, proves to be helpful to describe the action potential of these iconic signs. The lab has identified 16 Temporal Semiotic Units. These units are commonly recognised by listeners because of their properties based on rhythm and repetition. The MIM researchers have decided to name the Temporal Semiotic Units after their main characteristics and have given a semantic description of each of them. The unit called 'obsessional', for example, is so called because of its insistent nature[11]. The unit 'by waves' is characterised by the slow repetition of a delta-shaped sound pattern, its energy at first increasing, before decreasing, then increasing again, and so on and so forth[12].

I consider, as do researchers like Philippe Bootz (2007), the semiotic units as parts of a general semiotic system based on temporality, which can be implemented through sound, texts or images. One of the possible visual equivalents of the unit 'obsessional' would be a flashing light. Dan Waber's poem can be considered as a visual equivalent of the sound pattern called 'by waves'.

It is the iconic characteristic of a Temporal Semiotic Unit that allows the listener to recognise it. In this sense, it is based on the integration and stabilisation of previous experiences. In many cultural contexts, the readers may recognise the unit 'by waves' because they have already listened to the sound of waves, watched their motion, stared at an object carried by waves. They perceive the unit 'by waves' as a distinctive one, despite the visual differences between a left-to-right cyclical movement, or a repetitive growing and decreasing motion. The signified of this iconic sign recalls ideas such as stillness, regularity and endless cyclicality.

However, as we verbalise the signified of a temporal semiotic unit, such as the one called 'by waves', we should not forget

that an iconic signified is not an object for conscious thought, 'but rather a form the perceiving body starts resonating with' (Meunier 2006). In an animated text, whenever a linguistic sign and motion are combined on the same active support, two signs of a very different nature intermingle: the iconic sign refers to referents that have been experienced, while the linguistic sign is still characterised by its arbitrariness. Such an intersemiotic coupling can never be completely redundant.

Let us now observe how the iconic sign and the linguistic sign interact in Dan Waber's poem 'haha'. The word itself imitates the sound of human laughter and can therefore be considered as iconic. The coupling with the temporal unit 'by waves' activates the 'prolonged laughter' signified, because the cyclic back-and -forth propulsion indeed refers to the sound produced by such laughter. The movement not only seems to illustrate human laughter, but also to create the 'pretense' of its referent.

Yet, the motion called 'by waves' provides the pluricode coupling with regularity and continuity, making it fundamentally different from what the reader knows about and expects from human laughter. This 'tension' between the iconic signified referring to the idea of 'endless cyclicality' and the necessary limited dura-tion of human laughter rather remind us of rhetorical tropes such as metaphors. Despite the first impression of personification that this poem conveys – because of its graphics and modulated rhythm – this pluricode tension potentially dehumanises the ani-mation 'haha', thus offering a profound reflection on the fascina-tion and pitfalls of iconicity in animated texts.

Such 'unexpected' couplings, between text and motion, may be considered as an important part of the literariness of every digital creation (Saemmer 2011): they potentially induce reactions of surprise, incitement or a state of reflexivity, and thus remind us of the 'spaces of indeterminacy' described by Iser, in which the reader's imagination is stimulated and unleashed. In the cross -referenced corpora, this kind of potential unexpectedness is also explored in text animations by Brian Kim Stefans, Robert Kendall, Jim Andrews, David Jhave Johnston and Alan Bigelow.

The 'unexpectedness' criterion in text manipulation

Digital literature does not only experiment with motion. Most works in the cross-referenced corpora are interactive and some-times explore 'unexpected' combinations between a manipulable text, the related texts resulting from the manipulation gestures and the 'manipulation' gestures themselves. Again, we should try to define this unexpectedness more precisely.

Whenever the reader 'manipulates' an interactive text, a lin-guistic sign is coupled with an iconic sign, i.e. a series of ges-tures performed for a purpose. In many works of the corpus, the reader is invited to move the cursor over words or images, and then press a mouse button or tap the touchpad screen. This manipulation, based on a series of pressures and releases, is characterised by its brevity and its non-repetitivity. I would argue that such a series of interactive gestures constitutes the signifier of an iconic sign, which is called a Semiotic Unit of Manipulation. In a research project carried out at University Paris 8 (by Philippe Bootz, Serge Bouchardon and myself) we are currently trying to identify these Semiotic Units in the digital discourse in order to circumscribe the action potential of gestures in electronic environments. For instance, the unit called 'scratch' combines prolonged pressure gestures with a repetitive back and forth motion on an interactive zone. The unit called 'activate' is cha-racterised by consecutive, brief and non-repetitive pressure and release gestures.

A Semiotic Unit of Manipulation is based on the integration and stabilisation of previous experiences (Klinkenberg 2000): for instance, the reader shall recognise the 'activate' unit because he/she has already experienced it by pressing the button of an electrical device, or by pushing any key on a keyboard... The 'signified' of the iconic sign does not differ from the referent that has been experienced. According to the cultural context, it may then recall ideas of immediate launch and release. This iconic potential of every Semiotic Unit of Manipulation also becomes meaningful in relation with the texts and images with which readers are invited to interact and with the potential interface changes, which more or less satisfy or challenge the reader's expectations.

The coupling of textual elements with a Semiotic Unit of Manipulation sometimes recalls the rhetorical figure of metalep-sis used in paper texts. Jorge Luis Borges (1957: 85) summari-ses the readers' confusion when confronted with this figure in the following words: 'Such inventions suggest that, if fictional charac-ters may become readers or spectators, there is no reason why we, their readers or spectators, could not become fictional cha-racters'[13]. '<u>Follow me before the choices disappear.</u>', this is what we can read on the first page of *Twelve Blue*, Michael Joyce's historical hyperfiction[14]. By activating the hypertext through a physical manipulation gesture, the reader may get the impres-sion that he/she literally follows the character. Through iconicity, this coupling of text with gesture thus anticipates the reader's mental and (almost partly) physical immersion in the story. At the same time, it emphasises the ontological 'gap' between the two semiotic systems: the reader always consciously interacts with a text, not with actual things or human beings. In this respect, the pluricode coupling of a text with a semiotic unit of manipulation shall never be completely redundant.

In the white darkness is a work by Reiner Strasser and M. D. Coverley that is included in the two anthologies[15]. It thema-tises the slow decay of the memory of patients affected with Alzheimer's disease. Through a graphical interface consisting of white circles and lines connecting these circles, the reader is invited to activate images and fragments of text. The iconic characteristic of the gesture refers to ideas of immediate launch and release. The reactions of the interface only partly confirm the reader's potential expectations, resulting from his/her being use to retrieve information, among other causes. These reac-tions are very slow and never satisfy the desire to 'learn more'. By confronting the reader with a magma of fragmented texts and images, this work not only makes us literally feel how the memory of patients affected with Alzheimer's disease functions – it also offers a critical reflection on what we expect from hyper-text and the Internet, on our impatience and our desire to click to get an immediate result.

Such potentially 'unexpected' couplings of text with manipulation gestures and related texts may be considered an important part of the literariness of e-lit works, confronting us with essential and existential themes while defying our habits and expectations. In the cross-referenced corpora, works by Annie Abrahams and Patrick Burgaud meet this 'unexpectedness' criterion in a parti-cularly striking way by preventing the reader from clicking as fast as they would like to (Annie Abrahams, Separation/Séparation) or by the unpredictable behaviour of the letters on the screen (Patrick Burgaud, Jean-Pierre Balpe ou les Lettres Dérangées).

The deviation criterion of genre conventions

Twentieth century avant-gardist movements were characterised by a critical reflection on the writing medium, its formal char-acteristics, publishing and the distribution processes of the

literary text. When Jean Clement argues that in hyperfiction and programmed literature, 'the refusal of the temptation to create meaning also refers, in some cases, to an appeal against the established order of literary tradition and language itself' (Clément: 3) he defines these creations in relation with lite-rary movements that had transgressed the 'classical' taxonomy before the arrival of the computer.

The digital network arose in the cultural context of the 70s. The action potential of the delinearised 'rhizome', inspired by the paradigms of postmodern philosophy and the Nouveau Roman, is explored by MD Coverley in *Accounts of the Glass Sky* and Michael Joyce in *Twelve blue*. The programmatically entitled work *Ulysses 101* by David Clark, Chris Mendis, Mary Beth Carty and Jennifer Banks, confronts the reader with a triptych of randomly displayed film sequences combined with fragmented texts. The extreme decoherence between these elements not only challenges the limits of the 'traditional' novel, but also the very boundaries of digital textuality.

While some works of the cross-referenced corpora are closely linked to issues tackled by the twentieth century Avant-garde, other authors challenge the reader's expectations raised by digi-tal creation itself, as is the case with video games. To pass 'level 1' in Jason Nelson's *Game, game, game and again game*[16], whose hand-drawn graphics already subvert the player's expec-tations, the player must guide a little creature by using the arrow keys of the keyboard. Whenever the player makes the creature jump over a precipice, it explodes. Should the player fail or refuse to make it jump, the creature falls into the abyss, to come dangerously close to the sun. It will however always safely land onto a new platform, allowing the player to move on to level 2 whatever he does.

The coupling of the manipulation gestures with the differen-tial between the initial images and the changes in the inter-face, resulting from the manipulation gesture, potentially meet the expectations of a player accustomed to the world of video games. Nevertheless, the purpose of these interactions certainly defies his/her expectations: usually the player loses a life when the creature falls into the precipice (c.f. Mario games).

Does Jason Nelson simply defy game conventions or is this game likely to be interpreted any further? The author affirms that this game is also about exploring 'belief systems'. The first level is called 'the fundamentalist or obsessively charmed by the sun'. Indeed, the player's rationality is strongly challenged. Some works in the corpus potentially involve the reader in a critical exploration of genre issues and societal phenomena, therefore meeting both the criteria of the 'deviation from literary conven-tions' and 'reflexivity'.

The technological innovation criterion

The presence of the last category of works in the corpus might be primarily justified by technological innovation. Stuart Moulthrop's *Reagan Library* (1999) was among the first to combine textual narrative threads with spatial representations, which can be explored through panoramic browsing. In *open.ended*, Daniel C. Howe and Aya Karpinska experiment on the display of a text on an interactive three-dimensional cube. The multiplicity of pos-sible combinations prefigures a new form of spatial combinatory logic. Eugenio Tisselli's *Degenerative* confronts the reader with a text that 'deteriorates' a little bit more with each visit: whenever a reader activates the work, an element of the html code is erased or replaced. By its instable nature, this work proposes a reflec-tion on the lability of digital literature; its literary value primarily comes from the creative work on the code. Michael Mateas and

Andrew Stern explicitly present their interactive drama *Façade* as both an art *and* research project resorting to artificial intel-ligence technologies. The main interest of this creation does not so much lie in its graphics or its general storyline as in the flu-ency with which the avatars respond to the reader's interactions.

J. R. Carpenter's *In absentia*[17] innovates in its use of geo-location processes, although the author warns the reader about the limits of this innovation. In this auto-fiction on spatial memory, geo-location points to real places by revealing their fragile nature. Markers have been placed on the Google map of Montreal. Stories about the neighbourhood are displayed as the player activates the markers. However, places change with each update of the Google Maps database. In the near future, those stories will fly over a city they will no longer have anything to do with.

Conclusion

Works such as *In absentia* are present in both anthologies and can be considered as 'legitimate' in the field of digital litera-ture. They will however change over time. No one can tell what the future of Google maps will be. The 'canonisation' of digital works is thus challenged by the intrinsic instability of the device. Preservation initiatives, such as the video screenshots included in the nt2 'improved sheets' seem necessary to ensure the sus-tainability of this cultural heritage.

Jörgen Schäfer and Peter Gendolla (2009: 93) wonder if digital works generate a brand new literary value and if this value could possibly challenge the traditional aesthetic claims to perfection, consistency and stability. My answer to both these questions is yes. This new literary value requires that the notion of 'canoni-sation' be redefined or simply dropped. Should the latter option prevail, the integration of digital works into schools and universi-ties curricula remains an important issue. Anthologies are likely to play an important role in this process. The selection criteria for these anthologies should be precisely and frankly discussed. We should indeed question the 'literariness' of digital literary works again and again - even when those criteria are endlessly re-adjusted to welcome surprising, innovative, disturbing, 'off criteria' proposals.

Notes

1.   *Electronic Literary Collection* 1, (2006) http://collection.eliterature.org/1/. *Electronic Literature Collection* 2 (2011) http://collection.elitera-ture.org/2/

2.   'Répertoire des arts et littératures hypermédiatiques', category ' fiches bonifiées', http://nt2.uqam.ca/search/nt2_repertoire

3.   http://elmcip.net/

4.   http://www.hermeneia.net/

5.   'ELD 2.0: A Networked Evaluative System', http://directory.eliterature.org/networked

6.   *Electronic Literature Collection* 1 (2006) http://collection.eliterature.org/1/ *Electronic Literature Collection* 2 (2011) http://collection.eliterature.org/2/

7.   'Répertoire des arts et littératures hypermédiatiques' http://nt2.uqam.ca/search/nt2_repertoire

8.   'Directory of the hypermedia arts and literature'.

9.   'Répertoire des arts et littératures hypermédiatiques', category 'fiches bonifiées' http://nt2.uqam.ca/search/nt2_repertoire

10.   Dan Waber, 'Haha', http://collection.eliterature.org/1/works/waber__strings/haha.htm

11.   Sound examples: http://www.labo-mim.org/site/index.php?2008/08/22/36-obsessionnel

12.   Sound examples: <http://www.labo-mim.org/site/index.php?2008/08/22/42-par-vagues>

13.   Translation by the author of this chapter.

14.   http://nt2.uqam.ca/repertoire/twelve_blue/plus

15.   http://nt2.uqam.ca/repertoire/in_the_white_darkness/plus;
       http://collection.eliterature.org/1/works/strasser_coverley__ii_in_the_white_darkness.html

16.   http://collection.eliterature.org/2/works/nelson_game.html

17.   http://collection.eliterature.org/2/works/carpenter_in_absentia/;
       http://nt2.uqam.ca/repertoire/in_absentia/plus>

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MIM, Laboratoire Musique et Informatique de Marseille. http://www.labo-mim.org/

nt2 (laboratoire) *Répertoire des arts et littératures hypermédiatiques*. http://nt2.uqam.ca/search/nt2_repertoire

nt2 (laboratoire) *Répertoire des arts et littératures hypermédiatiques* catégorie 'fiches bonifiées'. http://nt2.uqam.ca/search/nt2_repertoire

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ARTISTS' VOICES

EMBODIED ALGORITHMS: ON SPACE AND MOBILITY AS STRUCTURAL METAPHORS[1]

Romy Achituv

This short paper proposes the concept of 'embodied algorithms' to describe the use of models borrowed or derived from other disciplines as structural metaphors in works of art. The models may originate in fields as diverse as phenomenology, linguistics, or computer science, and while they may not themselves be computational or procedural, their cross-disciplinary/cross-modal implementation imbues them with a symbolic dimension that suggests a hermeneutical methodology (hence, 'algorithm') for constructing interpretive narratives.

The paper examines the constitutive role played by space and mobility in interpreting a series of the author's own artworks. For the sake of brevity, it focuses primarily on a single interpretive model derived from the writing of phenomenologist Georg Gadamer, and relates it to a number of digital models, or algorithms, employed in the works.

In his seminal work, *Truth and Method* (1975: 386-391), the German phenomenologist Hans Georg Gadamer speculated that it is in the movement between languages – in translations and interpretations – that new thoughts and meanings arise. From this perspective, translation might be said to represent a unidirectional trajectory: a leap, as it were, from one locale into another. Interpretation, on the other hand, could be described as a reciprocal motion between two locales, i.e., a form of paraphrase, with meaning generated in the course of perpetual motion between two semantic utterances.

The desire, and ability, to transcend the boundaries of one's locale are fundamental human characteristics. In *Laws* (1980: 33), Plato suggests that the origin of play lies in the need of the young to leap. Similarly, we might speculate that the ability to generate new thoughts and meanings, and indeed perhaps creativity itself, lies in the need of the mind to leap, to move beyond its own 'locale.' Novelty and creativity require not only space to maneuver, but also clear reference points. In other words, they require 'free-play,' the paradox of freedom within set boundaries.[2]

In a wide range of disciplines – phenomenology, psychoanalysis, and metaphysics, to name a few – motion and its relation to the attendant concepts of space and boundaries are considered fundamental for the production of meaning. If meaning is indeed predicated upon mobility (the motion between 'locales') then it may follow that hindering this motion, whether by restricting space or mobility itself or by frustrating the underlying desire to 'leap,' may undermine the very possibility of meaning.

The concept of movement between languages, which is constitutive of the dynamics of both translation and the broader search for meaning, is particularly pertinent to the interpretation of artwork, that is, to forging a relationship between image and word.

This model can be applied along two axes. The first relates to the spatial dynamic of spectatorship, which might be described as the reverberative, interpretive, motion between the spectator and the object of perception (the artwork), or, in phenomenological terms, between perception and cognition (a dynamic that also parallels the trial-and-error method of common scientific and creative practice). The second, or lateral, axis is internal to the artwork itself, forming the structural backbone of both its formal design and semantic reading.

The visual/physical representation of the relationship between space and mobility is a particular instance of a cross-modal 'import.' If we accept Gadamer's proposition, any structural model 'imported' into a work of art involves a process of translation, and is therefore a breeding ground for new ideas and interpretations.

Throughout the history of art, formal and structural features have expressed symbolic, religious, or philosophical ideas and ideals. Prominent examples include idealized canons of figurative representation from ancient Egyptian to European Baroque art, the analytical use of linear perspective in Renaissance painting, and stylistic devices that define the major 'isms' of modernism, such as the impressionist brushstroke, the cubist and futurist fragmentation of space and motion, and the diverse individual solutions invented by the American Impressionists (or their critics) in their pursuit of 'flatness.'

In art that has been canonized by the traditions of art history, the meaning of these devices is more or less fixed. It is presented as the interpretation either of *a priori* symbolism or implicit, yet uncontestable, intentionality (as in the dictums of Clement Greenberg). On the other hand, the more idiosyncratic the structural foundation of an artwork, the more it can be regarded as part of the distinct semantic palette of the artist. Furthermore, when the artist employs structural models that do not carry *a priori* cultural associations and allusions, their symbolic or metaphorical potential may become apparent only during, or even after, their implementation.

Following is a series of examples that explore the means by which various 'embodiments' of space and mobility guide interpretation of the artwork. In selecting these examples, I have

Muse (1984), *MUTE* (1984).