LUDIC TACTICS

AUTHORIAL SCHOLARSHIP 2.0: TRACING THE CREATIVE PROCESS IN ONLINE COMMUNITIES

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The age of letter writing is coming to an end, just as an era of e-mail, blogs, online groups, and social networks is emerging as a new mode of communication. The work of scholars interested in what writers have to say about their work has simultaneously become easier and more challenging, depending upon the technologies used by these writers. How do we conduct authorial scholarship in an age of digital media? My presentation will address this question through a case study: my own research on Jim Andrews and his work, focusing on the challenges and affordances offered by the current media ecology.

But first it is important to consider the need for authorial scholarship in the 21st century, since this became a highly contested critical practice in the 20th century. The famous New Criticism essay by W. K. Wimsatt and Beardley, *The Intentional Fallacy*, helped debunk a scholarly tradition based on biographical research designed to determine the author's intent with the goal of focusing critical attention on the text (1954). Reader Response theories drew attention away from the author to emphasise the role of the reader in the construction of meanings in literary and other works (Harkin 2005). Roland Barthes' essay, *The Death of the Author*, essentially subverted the Formalist practice of close reading to destabilise single interpretations, which he attributes to an Author who must 'die' to allow for endless play at the hands of the Reader (1977). Michel Foucault's *What is an Author?* examined the discourse surrounding the author to define an 'author function,' which is constructed both by readers and by the culture that produces the conditions for the work to exist and have meaning (1984).

Foucault also gestures towards a very practical problem taken on by bibliography and editorial theorists such as Fredson Bowers, G.Thomas Tanselle, Jerome McGann, Peter Shillingsburg, John Bryant and many others: where does a work stop? What does one publish? As is obvious to editors who must choose among multiple manuscripts and editions of a work to produce new, critical, or 'authoritative' editions of literary works – works are multivalent, never self-identical, and authorial intentions are a problematic guide to making such choices. The Bowers and Tanselle intentionalist approach to editorial theory seeks to capture the text that best represents the author's intentions, and arguments can be made for manuscripts, first, revised, or final editions, to fulfill that need. For example, in the case of Herman Melville's *Typee*, the editorial team (which included G. Thomas Tanselle) chose to represent one moment in the creative process and authorial intent in the 1968 Northwestern-Newberry edition (Bryant 2002: 38-40). Jerome McGann makes the case that when texts are published, they are 'socialised', which means that multiple intentions and interests, including authorial, editorial, publisher, layout artists, letterists, and their vision of a culture, become inextricably joined and crystallised in an edition (1991). Shillingsburg and Bryant both pragmatically harmonise some of the bibliographical debates to propose digital and print editions that can offer 'clear reading' texts and 'fluid-text' editions, capturing the multiplicity of intentions, which do change over time, as can be seen in John Bryant's Fluid-Text Edition of *Typee* (2006).

Clearly the notion of the author, humanised and stripped of its powers to provide definitive interpretations, has remained a compelling force for insight in literary study. Dario Compagno' essay *Theories of Authorship and Intention in the Twentieth Century: An Overview* (derived from his 2010 dissertation) provides a complete theoretical and philosophical overview of the 20th century debate on the author, concluding that

> it is better to build up an author *as best as we can*. A pragmatic approach to the author recognises the fallibility of interpretation, but values all clues that can help to understand *intentions in the act of writing itself*, and so to see alternatives and choices in the words and sentences actually used. (2012: 48).

Compagno makes a compelling and well informed argument for the author and its intentions as being always open to interpretation and therefore offering inexhaustibly productive ways of negotiating interpretation in the public sphere.

Having provided a brief overview of the pragmatic and theoretical debates surrounding the notion of the author, this study will now focus on some of the pragmatic considerations of undertaking authorial scholarship in an age of digital media by reflecting upon my own work, as I studied Jim Andrews' practice for my dissertation, *Typing the Dancing Signifier: Jim Andrews' (Vis) Poetics* (Flores 2010).

Jim Andrews is a well-known poet, programmer and artist who has published his born-digital work online since 1995. He is also a prolific writer of essays about his digital poetics and his work, which he links to from his website Vispo.com. He has created and participated in diverse online communities, such as mailing lists, Yahoo! Groups, blogs, and on Facebook, where he promotes discussions on the poetics of digital media.

An important resource he founded was a Yahoo! group titled Webartery on December 15, 1998, which contained a lively community of writers of e-literature. In this group they discussed works in progress, debated topics of concern to their developing community, had arguments and made peace, and occasionally parted ways. Reading the Webartery postings by Andrews as he was developing *Arteroids*, for example, reveals a great number of ideas that he was considering, revising, getting feedback on, adopting, and discarding. Andrews left the group on February 20, 2005, but it continues to be a tremendous resource on the artistic practices of an early group within the e-literature community. The Yahoo! group structure automatically archives all these conversations, which remains as a testament to their artistic development

Andrews also corresponds with me and invited me to join Webartery ever since we met in Buffalo, New York during the E-Poetry Conference and Festival in 2001. Andrews has proven to be very generous with his answers to my questions, and has provided me with valuable archival materials – the *Arteroids Development Folder*, a collection of 1331 files that include 82 different versions of *Arteroids*. This is a valuable collection because by studying the source files and early versions, one can get a sense of Andrews' choices and conceptualisation of the work, which can lead to greater insight and appreciation than just by reading/playing the two versions published by Andrews in Vispo.com. There are also numerous essays, online forum postings, e-mails, documents, sound, image, and other files, all of which present a complex matrix of developing intentions and conceptualisation of the work known as *Arteroids*.

To illustrate the value of this kind of research, I will provide a brief narrative of the development of Andrews' videogame poem, leading up to the publication of version 1.0, using postings by Andrews on Webartery and materials from the *Arteroids Development Folder*.[1]

While Jim Andrews was exploring the possibilities offered by Macromedia Director 8 and its programming language, Lingo, he found a sketch of the 1979 Atari game *Asteroids* by Ian Clay which had been posted on Director Web on Feb 5, 2001 (2001).

Fig. 1. *Asteroids* screenshot

Perhaps the A-shaped ship appealed to Jim Andrews' Lettristic sensibility, or some other aspect of the game captured his imagination, but inspired by the potential he saw in adapting the game for his poetic explorations, Andrews started to develop an e-poem and game he initially called *WebArteroids*. These early drafts, along with the forum discussions held in the Webartery group, are evidence of the conceptual groundwork for *Arteroids* as well as a record of Andrews' intentions for the work and are therefore a valuable resource for a media-specific analysis and bibliographical study.

The very first draft found in the Archive is titled *shipshoot*. It is purely a test of the game framework, consisting of two ships (the smaller ship for the user, the larger as a target), instructions displayed above, the ability to shoot, and the capability to detect an impact from the shot (registered as a slight movement of the otherwise static ship). (See Fig. 2).

The first draft he shared with the Webartery group is titled *shipshoot8* (see Fig. 2), in which the large target ship was replaced with a floating head that chases the player's ship in an attempt to

Fig. 2. Screen capture of *shipshoot*

'eat' it.[2] His July 2, 2001 forum posting is the first published reference to the work that would become *Arteroids*, and it includes a link to *shipshoot8* and an invitation to the Webartery community to send pictures of their face from different angles, so he could turn them into 'space monsters' (Andrews 2001a). This initial concept of the poem/game pitted the player in a destroy-or-be -eaten relationship with the disembodied heads of poets; perhaps the poets who participated in the Webartery community at that time. If the work had remained as initially conceived it probably would have become an amusing game primarily focused on strengthening an online community of poets and net artists. But for Andrews, playing with this interface was the beginning of a creative conceptualisation that led him to the text-based version now published in several versions.

Fig. 3. *shipshoot 8* screen capture
Fig. 4. Image 23 in *Arteroids Development Folder*

The reception was enthusiastic and the forum postings indicate several volunteers were sending pictures for the piece, but Andrews was already uneasy with that initial concept, as evidenced by this posting the very next day.

> The poetry in this piece... where is the poetry in this piece... ?
>
> I think it will be in the nature of the departures from Asteroids, the import of the animations and sounds... what is the player doing? Blowing up poets and/or other things also? What is the identity of the player? It is a ship now, but it could change through the game. And what are the poets and/or characters doing?
>
> I'm way open to suggestions here (Andrews 2001a).

Andrews received numerous suggestions, such as making it a kind of magnetic poetry/asteroids combination, questions about what happens to the heads when they exploded and whether they became other smaller heads, comments that dismissed the venture as a bauble, and long-rambling philosophical writings about meaning in language and poetry. As Andrews discovered the direction he wanted for *WebArteroids* and made choices that focused the project (to the point of softening the Webartery reference to rename the work *Arteroids*), the feedback from the Webartery community became focused as well, keeping itself relevant as a sounding board for Andrews.[3] The discussion in the community space was also important because it led Andrews to explain the work, the directions he contemplated, his choices, and his poetics.

Two messages from July 8, 2001 are particularly useful to reconstruct Andrews' thoughts on the directions he might take in developing the work.

> I am working on one now where the id-entity is the word 'id-entity' and the 'asteroid' is a text that grows in letters as you shoot it...if you run into the text, then the text gets set back to one letter long and the text scores points against you...if you manage to shoot it enough times without running

into it, thus revealing the full text, then you score points and dispatch it to hell.

Another one of course could be where the id-entity is the word 'poetry' and the asteroids are lots of the word 'prose' and 'ad' etc.
Or the id-entity is the word 'web.art' and the asteroids are 'net.art', eheh. Or the other way around. or historicism vs web.art or whatever.
Or the id-entity is a toywar figure and the asteroid is etoys... Or the id-entity is a graphic or set of animations of you and the asteroids are your pet peeves (or worse)...

There can be more than one 'asteroid' on the stage at a time but only one id-entity. And the behaviors of the asteroids can vary, I'm open to suggestions here. So far I can see some that follow the id-entity, some that don't but just drift. And then there's the one I mentioned where you have to shoot it several times before it expires, and each time you shoot it it changes, like if it's a text it might grow by a letter or word or shrink by a letter or word. Or if it's an animation it might display a different animation each time it's hit, and a different one yet when it is 'destroyed'.

And the 'missiles' can change in their graphical and sonic nature also. Can be letters or words or some other graphic and the associated sounds (if any) can change (Andrews 2001b).

A foundational idea discussed in these messages is the notion of a text that gradually reveals itself through game play. The linguistic content of the text is still indeterminate here, but the adversarial relationship between the 'id-entity' (the player's 'ship') and the targets (the 'asteroids') is evident, as are the militaristic undertones ('missiles,' 'destroyed,' 'dispatch it to hell,' and 'toywar figure'). From the outset, Andrews places the player/reader and the poem/poet on either side of this relation but had yet to decide how to explore or deconstruct that oppositional structure.

The first version actually titled *WebArteroids* was published to the Webartery group on July 11, 2001, and it was the first step in a textual path that would remain consistent to the latest version of *Arteroids* (see Fig. 5).

Fig. 5. *WebArteroids1*

In this version, the word 'Poetry' has replaced the ship (or what Andrews calls the 'id-entity'), though it retains the ability to shoot at floating texts. The text of the children's song 'Mary Had a Little Lamb' appears one word or phrase at a time and moves in a random linear trajectory at variable speeds until exploded by being shot. There is no negative effect from a collision beyond losing points in the overall score, so the player is indestructible, and the game's only level ends when the player has accumulated 300 points. With this version, Andrews defines the basic structure of the game/poem and needed only to develop it along the lines of game design, mechanics, text, and sound.
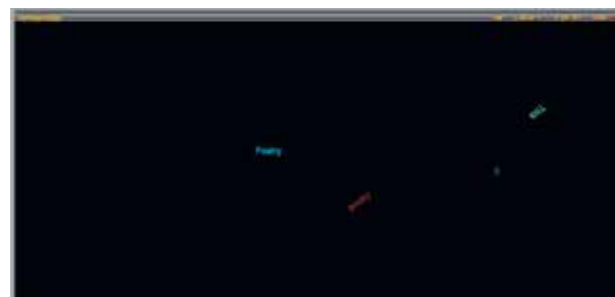

Fig. 6. *Arteroids 1.0*

The following morning, July 12, 2001, Jim Andrews received notification that he had been awarded a $20,000 grant from the Canada Council's Electronic and Spoken Word program to develop *Arteroids* (Andrews 2001c). This allowed him to continue working full time on this project all the way up to *Arteroids 1.0*, which he published in *The Remedi Project* and submitted a copy to the Canada Council along with its documented source code (Fig. 6).[4]

But there are four months of work on *WebArteroids* and conversations with the Webartery group before that led to the first officially published version of the work. The list below identifies some landmark versions in the development of the work.

• *WebArteroids4* introduces blue texts that follow the player's 'id-entity.'

• *WebArteroids6* gives the blue texts an independent text to display, as well as an explosion that is distinct from the text.

• *WebArteroids8* opens with a text editor which allows readers to write or copy and paste green and blue texts for the game.

• *WebArteroids9* moves the text editor to Canto 2, reachable after reaching a score of 300 points.

• *WebArteroids25* opens with a menu which allows users to choose between Cantos 1 and 2 and displays instructions for controlling the id-entity. It also includes an original text for both the green and blue 'texteroids.'

Beyond this version, the differences become more subtle, as Andrews develops the code, materials and text for a smoother, more playable experience. After publishing version 1.01, still in many ways a work in progress, the developments continue significantly. An important landmark that doesn't fall into this list because it occurs in *Arteroids 1.38* is the addition of sound to the game.

As must be clear by now, exploring different versions of *Arteroids* can provide useful insight for those interested in studying the work, be it for analysis and interpretation, for its programming,

or for the development of its concept. An insight from seeing the work in process is that Andrews' moved from a work that was initially concerned with icons, faces, poets, and graphical objects to interact with to a more focused engagement with language in the materiality of the digital environment as envisioned and simulated by the *Asteroids* game. Andrews was already interested in words drifting in the scene of digital media: *Arteroids* allowed him to expand on that concept, its lexicon, its simulated physics, its lexicon, its interactivity, its multimedia capabilities, and its expressive potential.

As may be evident from this example, exploring the archives for an online group Andrews participated in yielded a record of his creative process, evidenced further by the unpublished versions in the *Arteroids Development Folder*. In this case, authorial scholarship is updated through a diversification of sources to include online materials and the addition of editorial theory, media specific analysis and critical code studies. If I wanted to expand my research on *Arteroids* or any other of his works, I could explore different online resources, each of which has a specialised audience that promotes different discussions. In a recent conversation with Jim Andrews he provided detailed information on the groups and networks he belongs to. Here is a complete listing of the ones relevant to researchers interested in exploring what Andrews has to say about his works:

• **Hopper X**: a Director developer community powered by Mailman (a mailing list open source software). Jim Andrews is currently hosting it on Vispo.com, after founder Darryl Plant decided to discontinue it, though it had to be renamed as Hopper XX. The list still has a large part of its original membership and is archived automatically by Mailman.

• **WebArtery**: an ongoing electronic literature and net.art group powered by Yahoo!Groups. It is ongoing and maintains updated archives. Jim Andrews was an active participant from 1998 to 2005. Membership and a Yahoo! Id is required to search and access the archives.

• **-empyre-** 'is an online community of around 2000 artists, writers, theorists, curators and others, maintained by a team that invites guests to propose and moderate discussions, retaining the thematic integrity of the list' (empyre). This US/Australian based global community maintains searchable open archives at: http://lists.cofa.unsw.edu.au/pipermail/empyre/

• **Netartery**: is a group blog launched by Andrews in 2010 in which he posts about his developing work, things he has read, and material he has discovered online, all of which are valuable records of his artistic development. The comment thread with some of the other postings is also of interest because it is a space where the debate develops. It is powered by Wordpress and hosted on Vispo.com.

• **Netpoetic**: is a group blog launched by Davin Heckman and Jason Nelson in 2009, which features writing by Jim Andrews and a community of active artists, writers, and critics. It is powered by Wordpress and contains searchable archives.

• **Facebook**: On December 2008, Andrews became active in his use of his Facebook account. His current (as of June 9, 2012) connection to 628 friends, many of whom are well published members of the e-lit community, makes for lively discussions in this social network. His postings and activity

is archived in his timeline. You need a Facebook account and to be his 'friend' to access his current and archived materials.

• **Vispo.com**: Andrews links to all his published writing online, as well as writing about him, on his website. The site has been in continuous publication since 1995, and is archived by the Internet Archives and his ISP.

• **E-mail**: Jim Andrews uses desktop software to read and manage his e-mail. He has some old archives stored somewhere, but has been deleting e-mail for years because too many e-mails stored on the computer slows down e-mail software.

This last resource is among the most important ones, but also the most endangered. Studying the letters of (usually deceased) writers and publishing them has been an important aspect of authorial scholarship for over a century. In letters, we see writers open up in private conversations that can reveal great insights into their intentions, works, and poetics. E-mail has been widely available for at least 20 years, yet the archiving of these materials has been very inconsistent. Because of the Post Office Protocol (POP)[5] initially implemented for e-mail, many records have been lost as computers crash and e-mails get deleted to keep the mail management software from being overburdened by indexing a huge dataset. Unless someone has been consistently archiving and keeping backup copies on more than one machine, they are likely to have lost valuable e-mail over the years.

A positive development in this regard came in 2004 when Gmail changed the e-mail management paradigm by offering a large amount of storage and promoting the practice to archive, not delete e-mail. With ever-increasing storage capacity per user account on Google's server cloud, combined with a sophisticated search engine, keeping adequate e-mail records has become the default practice, which should result in less loss of information. Other cloud-based e-mail services have followed Google's lead in this respect, which should provide improved access to e-mail records in the future.

Privately owned cloud-based services do raise some concerns. At what point will the users outpace the growth in storage capacity offered by these services? Will the companies or the free e-mail services they offer last forever? What would happen if they are purchased by other companies, or cease to exist? To what extent will people download extensive e-mail archives onto their own machines, if that service is even offered? How safe is the data in cloud storage? Will it be preserved for the long term?

Access issues also abound, particularly with resources that require membership and limit access in other ways. For example, opening an account with Yahoo! in order to access the groups requires you to accept their terms and conditions, and may include a certain level of usage in order to keep the account open. In order to access Webartery you'll need to request joining the group from the moderator, who may or may not grant access. What will happen when a group becomes abandoned and there is no longer a moderator to provide access? Facebook also requires an account, plus becoming 'friends' with the person may impinge upon their privacy, or your own.

On the other hand, it is a great time to reach out to a writer by e-mail, social media, or blog and start a conversation, if they are open to it. And even if you don't have a personal connection, or don't want to create one, the records of digital interactions

are out there to be found and explored, and may attune your perception to recognise important choices artists have made in creating their work.

Notes

1. This section is adapted from a portion of Chapter 4 in my dissertation.

2. The head animation is more complex than a simple image, as described as follows by Andrews 'I borrowed my friend's digital camera and then just held it at arm's length and snapped away, looking into a mirror. Deleted most of them. Ended up with 24, but so far have only used 8. Took them into PhotoPaint and removed the background, replaced it with black, and turned the photos into grayscale. Also increased the contrast to get more shadow, more of a just black/white thing, a dark thing, and made myself into a bit more of a monster than I am in some others.' (see Fig. 3) (2001b).

3. I suggest visiting Webartery (http://groups.yahoo.com/group/webartery) and searching the message archive with the following keywords: 'asteroids,' 'webarteroids,' and 'arteroids' to access the discussion of the work in progress.

4. The file 'arteroids1_for_Arts_Council' in the *Arteroids* Archive is a working copy of *Arteroids 1.38* with the added benefit of a voice recording of Jim Andrews discussing the e-poem.

5. The Post Office Protocol works the following way: the server assigns a limited storage space to the user where it places incoming e-mail, the e-mail is accessed by the client's software and stored on their machine's hard drive, and the e-mails on the server are deleted.

Bibliography

Clay, I. (2001) 'New Is Old.' Director Web. Feb 5.

Andrews, J. (2001) 'Arteroids' *Vispo.com*. http://www.vispo.com/arteroids/ [Accessed June 29, 2012].

— (2001a) 'more webArteroids' *Webartery*. July 3. http://groups.yahoo.com/group/webartery/message/12050. [Accessed June 29 2012].

— (2001b) 'RE: [webartery] webArteroids' *Webartery*. July 8. http://groups.yahoo.com/group/webartery/message/12123 [Accessed June 29 2012].

— (2001c) 'surprise' *Webartery*. July 13. http://groups.yahoo.com/group/webartery/message/12182 [Accessed June 29 2012].

— *Asteroids* Development Folder. Unpublished. Digital Files. 2008.

Andrews, J., et. al. (1998) 'Webartery' *Yahoo Groups*. http://groups.yahoo.com/group/webartery/ [Accessed June 29, 2012].

Barthes, R. (1977) 'The Death of the Author' in S. Heath (ed.) *Image-Music-Text*. London: Mill and Wang, pp. 142-148.

Bryant, J. (2002) *The Fluid Text: A Theory of Revision and Editing for Book and Screen*. Ann Arbor: University of Michigan Press.

Compagno, D. (2012) 'Theories of Authorship and Intention in the Twentieth Century: An Overview' *Journal of Early Modern Studies*. vol. 1, no. 1. pp. 37-53.

Flores, L. (2010) *Typing the Dancing Signifier: Jim Andrews (Vis)Poetics*. PhD Thesis. University of Maryland. Available at: http://hdl.handle.net/1903/10799 [Accessed June 29, 2012].

Foucault, M. (1984) 'What is an Author?' in P. Rabinow (ed.) *The Foucault Reader*. New York: Pantheon, pp. 101-120.

Harkin, P. 'The Reception of Reader-Response Theory.' 2005. *College Composition and Communication*. vol. 56, no. 3. pp. 410-425.

McGann, J. (1991) *The Textual Condition*. Princeton: Princeton University Press.

Melville, H. (2006) *Typee*. in Bryant, J. (ed.) Richmond, VA: University of Virginia Press. http://rotunda.upress.virginia.edu/melville/default.xqy. [Accessed June 29, 2012].

Rackham, M., et al. (2002) *Empyre: Soft Skinned Space*. http://www.subtle.net/empyre/ [Accessed June 29, 2012].

Wimsatt, W.K. & Beardsley, M. (1954) 'The Intentional Fallacy' *The Verbal Icon*. Lexington: Kentucky University Press, pp. 3-18.

PLAYERS ONLY LOVE YOU WHEN THEY'RE PLAYIN': COMMUNITY AS ALGORITHM IN PROGRAMMABLE POETICS

Andrew Klobucar & Chris Funkhouser

The digital era of information prompts an array of new perspectives in epistemology. While the range of questions and approaches remains broad, deriving, as they do, from a rapid stream of constant technological developments in information processing, most issues commonly foreground a unique interdependence between knowledge and its mediation that has been characteristic of western philosophy for the past five centuries. The essential role media formats play may not just in rendering our social environments, but helping us interpret and verify them is generally accepted. In this paradigm, to interact socially and cognitively with the world refers less to our physical engagement with it and more to the methodologies and notational structures we employ to formulate it. Accordingly, the world itself as a separate substantial and observable environment, along with our own somatic presence in it, will often appear as little more than a kind of referential conceit. Michael Heim speaks to this very issue philosophically at the end of the 20th century, recognising distinct ontological paradoxes in the then newly emergent VR technology: just how our culture understands the term 'reality', he observes, can only weaken and become less physically certain 'as it stretches over many virtual worlds' (Heim 1993: 83). Heim's comments recall again digital culture's especially complex relationship with the physical world around us; yet they also capture a more extensive ontological impasse that has developed from the transformative effect information formats and structures have had on all modes of social relations. The ever-growing amount of statistical data that social media and semantic technologies are able to convey along with the referential content of a message supports an increasingly multilayered approach to communication in general. Addressing this relationship, both Katherine Hayles and Nicholas Gessler refer to the concept of 'intermediation' to describe how transfers of information from one medium to another (i.e., from page to screen, screen to mind, etc.), always transform both the new medium and the evolving information pattern into increasingly complex systems of interaction (Hayles 2005: 3-5; Gessler and Hayles: 482-499). Gessler and Hayles speak not only to our steady reliance on telecommunications to stay in contact with each other , but also to some of the more theoretical aspects of our inter-engagement as active media users who are technologically, linguistically and, as we argue here, 'algorithmically' networked within larger information-based communities. Ongoing technical innovations in the construction of clocks and watches since at least the 15th century have afforded modern

Fig. 1. Screen capture of opening interface for *The Apartment*.

culture ever more accurate, better quantified representations of time; at the same time they have instigated a very specific concept or conceptual framework for the world around us as an immense clockwork mechanism (Hayles 2005: 4). For Hayles, this type of abstract parallel in perception, where the structure of a technical apparatus is epistemologically extended into a working model of our experiential reality, requires a certain cultural blindness to intermediation – nothing less, in other words, than a referential leap over the semantic gap that separates how we organise information from its subsequent application towards a constructed understanding of the 'real' world. If, on the other hand, we acknowledge the constraints of these apparatuses in terms of describing or rendering our social interaction with each other as well as with our immediate surrounding environments, then we face a much more disjunctive relationship between the various mechanisms of information processing we continue to build and any resulting social and epistemological interpretations.

Such questions together constitute an important theme in many works of programmable literature, especially those that explore openly analytical and notational structures of social interaction. In Marek Walczak and Martin Wattenberg's *The Apartment* (2001), different viewers communicate literally through the joint construction of two and three dimensional blueprints for a set of collectively imagined apartments. The layout and position of the various rooms of each separate apartment correspond to phrases, lines and sentence fragments input by the participating viewers. Opening the program brings the viewer to a small interactive screen with a single blinking input field (Fig. 1). Engaging with the work requires the viewer to type and submit a single sentence of his or her choice, punctuation being optional, whereupon select words suddenly become operative, providing the title of the work and an accompanying visualisation. Figure 2 shows both the image and title constructed out of the input sentence 'The world is your oyster.' Three words ('world', 'your' and 'oyster') have been isolated from the clause and respectively aligned both semantically and visually with the terms 'window', 'bedroom' and 'dining'. The visual organisation of the terms represents a type of semantic structure or framework, situating, as it does, the various rooms and housing related objects in an array of different layouts for specific apartments or condominiums. Thus we watch, via the procedures of a very capable semantic analysis, how random sentences are able to transform both symbolically and conceptually into myriad living spaces. No matter what context each phrase may first suggest, an original architectural design quickly emerges to re-frame all key lexical elements, in terms of urban construction and planned housing.

Random variables, such as the size and alignment of the rooms, also help keep the project sufficiently dynamic. Specific words may dependably conjure up the same concepts of space – for
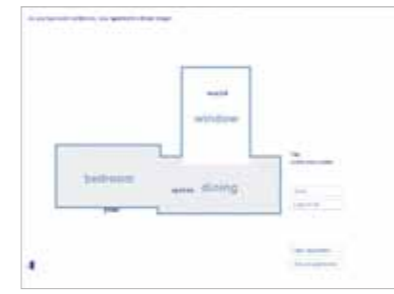

Fig. 2. Screen capture of *Apartment* blueprint constructed from initial input sentence.

example, the term 'pyjamas' invariably ensures a bedroom will appear somewhere on the screen. The size and shape of that bedroom, however, will depend upon what other spaces happen to be adjoining it and how many of these spaces are simultaneously laid out in other areas of the apartment: the greater the number of distinct rooms, the smaller the size of each individual space regardless of how large the apartment is in its entirety. What's important is the ratio of the room number to room size, operating as part of the overall semantic relationship.
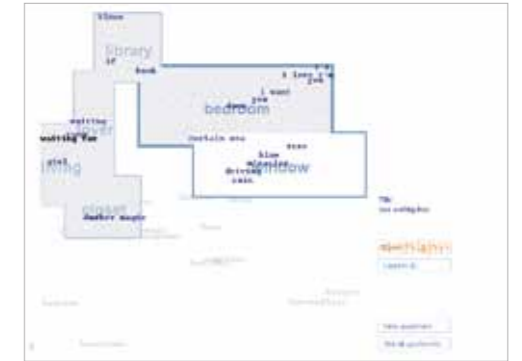

Fig. 3. Screen capture of 'sea waiting tree.'

Although hardly traditional, in narrative form, each visualisation has its own story to tell. Twelve categories of apartments (conceptual neighbourhoods, perhaps) serve to help organise the various projects as literary entities. Living spaces can centre on themes of 'vision', 'motion', 'body', 'work', 'group', 'truth', 'story', 'glamour', 'change', 'food', 'intimacy' and 'secrecy'. How functional the categories are with respect to each work's interpretation, remains a topic we can only introduce briefly here. Under food, for example, a blue print entitled 'sea waiting tree' calls forth the design for a four-room apartment (Fig. 3), consisting of a library, foyer, living room and bedroom, the bedroom being the dominant space in both size and location. Both the title and foyer space evoke a certain suspense, where a theme of active expectation is duly conveyed through the repetition of the term 'waiting'. Thus we find ourselves hovering in anticipation above a 'waiting room' and in it a 'waiting girl,' 'waiting far', pacing between the foyer and living rooms. Just below the room, in a fair sized closet space, references to 'magic' and 'other dust' dominate. Across the complex, the bedroom enframes pleas of love and desire. A sizeable window on the south end of the bedroom space offers a descriptive setting constructed via images of the 'blue sea,' 'trees' and 'driving rain.' On their own, the images and references circulating through the rooms are not very evocative – phrases like 'blue sea' are too general to convey much of a context or situation. Yet, arranged anew, in terms of a specific apartment space, the different lexical elements suggest together the social experience of domestic living. In this context how is one to understand the act of 'waiting' or 'waiting far'? Here, usually aligned as such, the words clearly recall a sense of space between a foyer and a living room. A highly original semantic alignment is in operation. All subsequent narratives or imagery with any attendant concepts are identifiable as attributes of specific spaces in our homes.

The rooms, as they appear, may even be compared to genres, but not in the traditional sense of a literary device as a framework for understanding relations between audience, situations