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.

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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 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 multi-layered 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

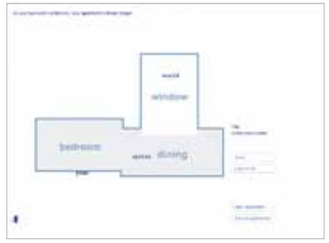

Fig. 2. Screen capture of *Apartment* blueprint constructed from initial input sentence.

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.

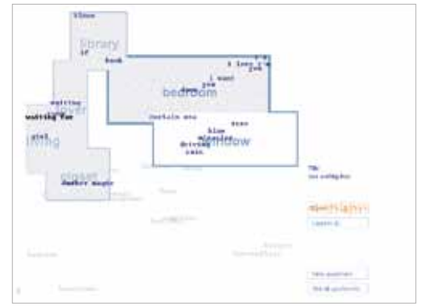

Fig. 3. Screen capture of 'sea waiting tree.'

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

and voices. Rather, the genre has become a mode for dividing up and interpreting a single floor housing unit – which in itself takes on the function of an active model for language use. For both Wattenberg and Walczak, communication itself, as both an act and epistemological framework, is to be imagined at its most fundamental level, not as verbal exchange between two or more individuals, but as an apartment – a unique dwelling space made up of specific rooms aligned together in distinct patterns or schema. Thus, in the authors' world, whatever concepts and ideas conveyed by our language ultimately derive from domestic living spaces. To understand our world, to interact within it, or so our language suggests, is to build, design and align rooms together.

In its functioning as a programmable work, then, the site or installation is coded to parse an impressive variety of input words, both lexicographically and grammatically, and visually reorganise them according to any underlying architectural themes or motifs that are subsequently found. Again, as suggested above, this level of processing offers the authors a kind of 'semantic analysis' where lexemes are re-contextualised by the program, both spatially and object-wise, in terms of a domestic living environment. The resulting alignments are laid out in the form of an ever-expanding blue-print, which is then further situated in an even broader topography of an imaginary city. The end product not only transcribes lexical patterns into architectural ones, the text into architext, if you will, but also offers viewers a very distinct symbolic infrastructure for new social formations. The information set before us on screen, in other words, effectively evokes a multi-modal semiotic environment as an experiment in communal spatial engagement. The formation itself is hardly subtle. We might note here, in fact, how the initial effort of inputting phrases or sentences into the text field infers first a simple, individual speech act – much as texting by phone immediately suggests an image of two people communicating verbally with each other on a one-to-one basis. One does not see the text message without imagining individual subjects engaged in the conversation that the text supposedly represents. Facing the screen, engaged by the flashing cursor, each viewer is unambiguously retained to cast his or her individual message outwards into the digital ether. A response may or may not be forthcoming, but the communication context certainly implores us to expect some kind of reply in kind. Instead, though, *The Apartment's* parsing mechanism actively dispels any such mode of interaction. What begins as a typical individual utterance literally breaks apart in front of the viewer, as certain words are preserved and others jettisoned to form a constantly expanding topography. The selection process thus re-transcribes each typed sentence, allowing the input field to conceive for us a completely new visual schema of social interaction. At the same time, acknowledging such constraints serves to remind us of the social, interactive quality of all information-based knowledge and its distribution along prescribed media networks.

Other more ecologically informed, social interactive projects, however, are less concerned with building integrated symbolic systems and choose to focus instead on the cybernetic models of interpersonal networking in writing. In the case of Elshtain and Trowbridge's on going Gnoetry project, digital networks are able to nurture complex, creative and, at times, even communal bonds between individuals and machines. Text generating software, like the original Gnoetry 0.2, coupled with an ever-growing array of different grammar parsers and character n-gram programs, help establish collective writing practices as process-oriented enterprises. The resulting works, many of them built by authors in dialogue with each other, demonstrate how the evolution of linguistic structure depends as much upon active social engagement as on rule-based routines and patterns. Here, both approaches, the symbolic and the cybernetic, are analysed as equally significant to programmable writing practices. Gnoetry is thus both a discourse and, quite explicitly, a set of tools – a software program. Further, recalling how Gnoetry – referring specifically to the software program – brought together various programmers, poets and theorists, it seems accurate to align the term with a specific discursive community. Arguably, such projects, invoking, as they do, information-based, analytical interactions, tend to prompt communal modes of engagement and constant textual exchange, instead of cultivating individual readers or listeners. The works collected in the anthology *Gnoetry Daily*, Vol. 1, being artefacts – in line with the broader lineage in which they are situated – that partly acquire cultural significance through their social distribution. As discursive objects of information they invoke a unique mode of interaction based upon their ongoing distribution through a network. Reading or engaging with a gnoetry piece remains comparable to any analytical investigation, where the interpretation is produced between the participants themselves, not between any single participant and the work at hand.

As a discursive community, Gnoetry readers and practitioners function not unlike any group of social scientists poised to examine, within whatever confines their respective disciplines warrant, the possibilities of lexical objects. Here, interpretative practices must abandon more traditional neo-Aristotelian responses to the text in terms of either a rhetorical (argument-based) or poetic (diction-based) mode of engagement to embrace an empirically driven, almost archaeological relationship to language as a 'found object' of study, ready for dissection – particularly given the fact that these are works that process input text rather than generate works from syntactical databases. Traditional rhetorical and poesis-based approaches tend to prioritise language as a means to replicate, or at least reference indexically, predetermined messages directed from a distinct sender to a single receiver – an author to his or her reader, in other words. Rather, cast anew as an artefact of discovery, the discursive evidence we see in *Gnoetry Daily*, Vol 1 – discursive objects of information – cannot be so easily partitioned into a model, where a set format carries specific content relevant to a single context. The content or meaning associated with these works, as with any discursive object, derives primarily from the textual and social networks in which it exists. In this paradigm, it might be useful to think of language and its use primarily as what interactionist theories of communication and neurolinguistics describe as a socio-cognitive event. Such theories further present modern epistemology as a joint product of a bio-linguistic predisposition towards symbolic abstraction and one's physical or sensual interaction with external reality (Larsen-Freeman & Long 1991: 145-165).

The use of computation in literature and poetics has a well-defined history, as has been summarised in Funkhouser's *Prehistoric Digital Poetry* (2007). Of particular interest here is the strong cultural and technical line of development that can be seen reaching from various current programmable writing projects, like Gnoetry, back to earlier experiments with computers and automated text generation, like TRAVESTY (Kenner & O'Rourke 1984). Both projects are, of course, traceable to an even earlier, rather singular testament to 'the computer's randomising power,' Richard Bailey's 1973 collection *Computer Poems.* To work through this historical lineage, beginning perhaps with TRAVESTY, is thus to explore a constant re-purposing of the artefacts at hand. In repurposing, the discursive community understands all objects as inherently malleable, attributing meaning to interfaces or modes of usage, rather than any concept of a pre-existing message or set of values.

Thus we have a community defined first and foremost by the arts, practices and techniques of communication, exhibiting accordingly a fervent passion for nearly all forms of lexical, semantic and syntactic interfaces, yet with subsequent little interest in a framework of reference to any separate content or idea beyond the modality itself. These discourses do not target or help situate existing communities, so much as they literally define them – make them manifest via interactive communication technologies. To look again to contemporary scientific practices, the discipline quite plainly delineates the community and its chosen compositional strategies.

One of the most significant historical markers of such methods remains, Hugh Kenner's and Joseph O'Rourke's early semantic technology and text generator, TRAVESTY. Collaboratively authored in the computer language Pascal, TRAVESTY was especially influential in experimental poetics, leading to a continuum of works created by other artists and a greater awareness of form in general. In TRAVESTY users are prompted to insert input text and to set the desired amount of output and the size of the selected configuration (up to nine characters in the original version of the program); the program itself supplies no dictionary or database. TRAVESTY scrambles (or permutates) text by replacing each character group in the text with another (of the same size) located elsewhere in the source. Works by other authors had been used as source texts for databases in the past (Theo Lutz, Nanni Balestrini and others), but TRAVESTY's approach to creating a digital poem involves a 'manipulation' rather than a 'generation' of text (Hartman 1996: 95). TRAVESTY, in particular, highlights the imperative role of a person's input in choosing a computer poem's source or database. In TRAVESTY words or phrases are not recycled but the combination or patterns of letters in the words themselves, and the spaces between words, become the basis for the program's output. Though initially statistical in character, these objective, analytical qualities may later be subject to personalisation (or not) by an author exercising editorial prerogative.

Essentially, Kenner and O'Rourke's article *A TRAVESTY Generator for Micros* (Kenner & O'Rourke: 129-31, 449-69) argues that the frequency with which combinations of letters appear can be used to generate plausible randomised texts ('pseudo-texts') when the computer program makes manifest those frequencies (ibid. 129). The relationship between these two texts, the article deduces, is that 'for an order-n scan, every n-character sequence in the output occurs somewhere in the input, and at about the same frequency' (ibid. 449). The authors demonstrate that 'essentially random nonsense can preserve many 'personal' characteristics of a source text' (ibid. 449). When n – or the number of letters in the text sample or 'pattern length' – is large, the commonalities are glaringly mirrored; when n is small, the roots of the words are less defined and traceable, making the texts and words more distorted (ibid. 464). With a small number of letters in the sample the permutated output becomes more divergent from norms, as many words can (and do) share a pair of letters. Kenner's observation is logical: words that share the same letter combinations often share the same etymological roots. Parallel texts created by TRAVESTY with a greater number of input letters tend to embody more original characteristics of the source text, for the combinatory patterns it uses will be unique.

TRAVESTY-like methods, which re-presented radically processed source texts, were adopted into the practices of several authors who discovered the program. As chronicled in *Virtual Muse: Experiments in Computer Poetry*, Charles O. Hartman began using TRAVESTY (which he believed examined 'the relation between the original and its transformation and deduce[d] various things about the language of the original') to construct a long poem entitled *Monologues of Soul and Body* (Hartman 1996 :54). Subsequently he explored permutation and combinatorial possibilities by creating DIASTEXT in the late 1980s. Poet Jackson Mac Low had created *Virginia Woolf Poems* using a 'diastic' method in 1963, whereby a phrase (or even a word) from a text is chosen and then words in a source text that share the same verbal or letter patterns are extracted and used to create a new poetic work. Transforming Mac Low's arbitrary method into a program was not difficult because the process itself is algorithmic and therefore more systematic with fewer variations caused by random elements. The program rapidly performs the artist's deterministic tasks once an input text and 'seed' phrase are chosen (Hartman 1996: 96). Mac Low favoured Hartman's program and used it to compose several poems and books. In 1989 Mac Low also began working earnestly with Jim Rosenberg's DIASTEXT and DIASTEX4 (which allows the user to choose and employ a separate index, instead of using the whole source text as the index), along with TRAVESTY. These programs profoundly influenced his title *42 Merzgedichte in Memoriam Kurt Schwitters* (1994). Hartman's program mechanically accomplished – with some variation and advancement – the procedural work that Mac Low had practiced for many years (which also involved a significant degree of systematic editing and author intervention). Today, we see similar methods being practiced in the n-gram mechanisms favoured by authors associated with Gnoetry (see below).

In many ways, digital culture is best understood according to these terms. That is, it is a culture made manifest by the medium first and the message second. To engage at this level, one must use the tools available – inferring, in this way, the instrumental function of language as a notational structure or framework. While, these discursive communities embody their own type of distribution network, they function primarily to continue exploring a shared aesthetic as well as to propagate its effort. To interpret a work is to continue to facilitate its distribution within an open and ongoing process of information exchange – not to isolate or delimit the work's significance with respect to a single context.

Comparable to Walczak's and Wattenberg's virtual city-dwellers, with the 'Gnoets' we have a distinct discursive community operating (or interacting) as a distribution network with the primary purpose of facilitating open and continuous information exchange on programming and literary aesthetics. Language functions first as a social medium, literally making manifest an interactive environment, where semantic and syntactic frameworks offer very specific grammatical and lexical protocols, which, in turn, are able to direct or govern the community's actual existence. Most importantly, referring again to Hayles's and Gessler's theory of intermediation, is that neither programmable poetry project discussed here extends each respective concept of community to include a literal or 'real' social body outside the network or medium in operation. Similarly, typical grammatical frameworks do not comprise visual models as distinct as a single apartment or domestic living space, nor are they meant to compromise their general functionality by referencing any specific social or physical context. The subsequent semantic analysis, however, is equally well defined. Like *The Apartment*, Gnoetry, the software program that brings these individuals together, is able to synthesise a language model based upon the analysis of 'statistical properties' in certain input texts. The text sources tend to be larger and more developed than the phrases and sentences that form the various apartments in Walczak's and Wattenberg's topography, yet the network is built around comparable constraints. The resulting configurations suggest a similarly functional relationship between language and community interaction, whereby the patterns and properties found in the former

are identified as social constructions – transcriptions, in other words, of active social engagement. The 'buildings' created by each participant exists in relation to those who build around it.

It may be tempting here, critically speaking, to compare a community derived from language and media protocols, as opposed to the more traditional inverse relationship, to Baudrillard's notion of simulacra (1988), where representational forms have been socially and epistemologically stripped of any actual, concrete referent – where, in other words, the referent and reference have been effectively re-combined into one and the same entity. Yet, such a critique remains premised on the implied expectation that media representation should, by definition, be indexical in both its format and structure – mimetic, in the sense that whatever referent being conceptualised must have some a priori actual existence. But this is not the case with these types of writing experiments: programmable works maintain that language functions as a conceptualising apparatus.

Regardless of what ideological concerns we may have with respect to the media's increasingly prominent role in knowledge construction, we have before us, in the notational structures of Gnoetry, a kind of imprint of shared analysis – a discursive echo, if you will, of cognitive interaction. The resulting concepts and information rendered, of course, do not infer knowledge in an indexical sense – that is, in the sense that the narratives or texts are literally describing the world *per se*. The patterns and alignments presented demonstrate more the potential knowability of our social environment via our shared sense of order and legibility. The N-gram is best understood in this context as a distinct and important semantic protocol. It provides no direct relationship to the actual world but instead lays out before us an uniquely functional discursive materiality. While such discourses refer to nothing actual – that is, neither the phenomenal experience nor its source – we see objective evidence of active cognitive engagement.

Looking again to Kenner and O'Rourke's aesthetic focus on letter combination frequency as a potential source of textual meaning – as a consistent, interpretable mark of discursive structure – we see the importance of information as both a cultural and social element. TRAVESTY brings to poetics – and the literary arts, in general – attributes like pattern length, inscribing them accordingly with an inherent cultural value. Despite its many incarnations, the consistent characteristics of the input text seem to invoke a signature identity. Recall here, again, how Hartman attributed to such patterns a linguistic deduction of characteristics of 'language of the original.' A similar acknowledgement of information's overall socio-cultural worth enframes both the application and usage of edde addad's eePoGeS or *Poetry Generation Sketchbook* project. As with TRAVESTY, eePoGeS provides writers with the capacity to process source texts in a comparable fashion by isolating and making manifest specific combinatory patterns derived from the semantic and syntactic structure of different source texts. Acknowledging its '. . . complete failure as a robust, elegant, and user-friendly application for unsupervised poetry generation;' the author, nevertheless, considers its value to be practice-driven and therefore a 'complete success as a fun-to-code app that helps me write poetry' (eddeaddad 2012, n.p.).

The construction process involves several notational models and discursive devices, some based upon N-Gram formulations and others on phonemic patterns or frameworks. In one option, the program presents users with several ready-made source texts culled from Shakespeare's sonnets (Fig. 4).

Fig. 4. Screen capture of ePoGeeS modelling tool.

In addition, and even more significantly, the user is given the choice of submitting his or her own specific source text, which can accordingly be parsed and analysed using the word or type-based bigram model, along with the program's phonetic and rhyming tools. The result is a more dynamic structure, built from probability, but less predictably.

Even text taken from this very paper can supply (one hopes) a suitable source for a new model. Below a few sentences analysing the themes discussed previously with respect to Walczak's and Wattenberg's work are submitted into the new language model field: namely,

> Such views constitute together an important theme in many works of programmable literature, especially those that explore analytical and notational structures of social interaction. In Marek Walczak and Martin Wattenberg's 'The Apartment' (2001), different viewers communicate literally by constructing together 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 inputted by the participating viewers.

Figure 5 shows some of the details of the above paragraph being broken down by the bigram into an order that is both alphabetic and ordered according to the number of two-word phrases with which it is associated – what addad calls 'counts'.

Clearly, the word sampled above with the most numerous two-word phrases is (not surprisingly) the conjunction 'and'. It has been placed in our writing with the words 'martin', 'notational', 'position', 'sentence' and 'three'. Clicking on the phoneme button just to the right of 'language' produces the information we see in Figure 6. The word 'apartment' has been broken down into the phonemes AH0 P AA1 R R M AH0 N T. Having been analysed, the subsequent semantic relations, in combination with other parameters chosen – for example, number of lines, enjambment, etc. – yield the following 8 lines:

> Such views constitute together two
> And position of programmable literature, lines
> And position of the participating viewers. The participating
> Viewers. The participating viewers. The apartment correspond
> To phrases, lines and position of
> The participating viewers. The apartment correspond to
> Phrases, lines and position of the participating
> Viewers. The layout and three dimensional blueprints

Fig. 5. Screen capture showing bigram information.
Fig. 6. Screen capture showing phoneme information.

One is easily impressed with the effect of enjambment on line length and the overall sound of the piece (Fig. 7). The bigram word model helps maintain a certain consistency between the two texts via root phrases found in the original selection of sentences, while at the same time re-aligning them to emphasise effects of repetition and rhythm. One cannot read the work produced without focusing on various personae identified as 'participating viewers' or perhaps the general theme of viewer participation.

The combination of different models used here offers us a different notational framework, perhaps not one as visually or lexicologically systemic as *The Apartment*, but nevertheless just as socially and epistemologically poignant. In fact, a socio-cognitive event drawn or made apparent via eePoGeS in many ways conveys a much more actively engaged relationship to language than the dwelling spaces constructed through Walczak's and Wattenberg's project, being, as it is, less dependent upon pre-established lexicological schema. This more varied interaction with source texts is certainly part of addad's aesthetic as well as a political aim of the tool. No semantic or phonetic model can ever be considered definitive with respect to this particular practice, in which no context is stable. The lack of a consistent

Fig. 7. Screen capture of the control panel in eePoGeS for selection of line numbers, enjambment features, accented vowels, etc.

semantic and notational system can be compared and, in some ways, contrasted not only with a work like *The Apartment* but also other generated text projects like Nick Montfort's *Taroko Gorge* (2009).[1]

Alternatively, eePoGeS demonstrates a more active engagement with its semantic tools. If there is a consistent cultural logic being conveyed here, it is more broadly that the conceptual and aesthetic capacity of language is first and foremost a mode of social engagement. By basing any and all semantic forms on various source texts, rather than a single model, eePoGeS shifts the construction process to the viewer's or user's individual engagement with the software. Patterns emerge, concepts materialise, but primarily as an effect of participatory engagement. Thus we see community, as in *The Apartment*, as a digitally encoded, semiotic environment, a theme that continues to be prominent in many works of programmable literature, especially those that explore analytical and notational structures of social interaction.

Notes

1. Written in Python, the digital work offers a more regular semantic schema employed via a single grammatical template. An algorithm randomly shuffles and re-shuffles lexical elements from a source text every time the project's URL is loaded or refreshed, but both the schema and template ensure that a rather remarkable verbal consistency takes place.

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