

The Art of Machine Use Subversion in Digital Poetry

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Abstract: Howard Becker (1982) terms a cooperative network of people organized through and around joint knowledge and conventions of practice as an "art world". A new "art world is born when it brings together people who never cooperated before to produce art based on and using conventions previously unknown or not exploited in that way" (310). This essay examines digital poetry art practice as an example of Becker's type of novel, networked, and collaborative cultural activity. The diffusion of Internet technologies and the ubiquity of computing has allowed for the creation of many new art worlds, digital poetry being just one example. Furthermore, digital poetry art practice demonstrates a long history of machine use subversion, as we see technologies initially designed for other uses being repurposed to create digital poetry. In these cases, most consequentially to our thinking regarding digital poetry, what occurs is the process described by Becker: "the people who develop new art worlds participate in the broad currents of intellectual and expressive interest growing out of extant tradition and practice" (314). Although the digital poem is a distinct and unique literary artifact, digital poetry can be regarded as an ouroboric recursive practice that builds on the extant traditions of early experimentations with print, film, and video poetry as well as net art. Understanding how digital poetry operates as an art world allows us to legitimize and recognize the importance of digital culture and its impact on contemporary art and culture.

Keywords: digital poetry, art world, machine use, subversion, digital art.

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Digital poetry is poetry that is made and experienced using a computer, and its emergence as a genre is increasingly becoming solidified within the burgeoning contemporary field of digital art. Lane Relyea (ix) suggests that in today's art worlds we can see a type of pluralism at play in a collapsing of structures that have formally organized collective practice and experience, and that this disarray opens a field of practice for more practitioners, contributors, and audiences. In fact, Relyea (ix) tells us that it is because of this disarray that we see art museums with a higher footfall than concert halls. This is because it can be suggested that "high art" worlds such as those found in classical music do not evidence the same extent of disarray and are not seen to be expanding to the same degree as electronic music, for example. Christopher Perricone (36) tells us that although it is legitimate to speak of an art world, the art world itself is not clearly defined, and that in order to understand any world such as an art world, it is not only a matter of understanding what an artist does but also what the artist does in the particular environment of appreciators. Perricone (31) cites John Dewey's *Art as Experience* in which he states that art, like life, goes on in an environment.

Howard S. Becker's theory of art worlds is useful to help us examine the environment in which artists are operating. An "art world", in Becker's terms, "denote[s] the network of people whose cooperative activity, organized via their joint knowledge of conventional means of doing things, produces the kind of art works that art world is noted for" (x). Over time every art world develops its own "artistic tradition[(s), such] as a connected series of solutions to a commonly defined problem" (Kubler, qtd. in Becker 301). Thus "revolutionary changes [within an art world] succeed when their originators mobilize some or all of the members of the relevant art world to cooperate in the new activities their vision of the medium requires" to address the still "commonly defined problems" (Becker 308).

A new "art world is born when it brings together people who never cooperated before to produce art based on and using conventions previously unknown or not exploited in that way" (Becker 310). An example of this kind of cooperation between people who have not collaborated before in the area of digital poetry would be *Born Magazine*. Launched in 1997 as a quarterly publication, *Born Magazine* was an online publication that would pair Web authors and poets to make digital poems. Similarly to how the Internet has allowed an explosion in the production of online literary content in publications such as *Born Magazine*, Becker argues that new art worlds typically begin with either the "invention or diffusion of a technology" (such as photography), the "development of a new concept" (such as the novel), or a new audience (such as the outdoor rock concert of the 1960s) (Becker 310-4). In all of these cases, and importantly for our thinking regarding digital poetry, Becker notes, "the people who develop new art worlds participate in the broad currents of intellectual and expressive interest growing out of extant tradition and practice" (Becker 314). As a result,

A new technique, conception, or audience suggests new possibilities but does not define them fully. So the first people involved experiment with it, seeing what it can do and what they might want to do with it. What people actually do with the innovation depends on what it makes possible, on what version they have of contemporary traditions and interests, and on the people and resources they can attract (Becker 314).

The expanding art world that is digital poetry could build on the extant traditions and practices of its precursor video poetry. In the early twentieth century there was an explosion of creative electromagnetic experimentation that fed into global video experimentation. Holly Rogers mentions how in 1965 "video was cheap and easy to use: it could be managed by one person; it could manipulate sound and image in real time; it could use the space around it as a creative material; and it could engender a new mode of activated spectatorship" (Rogers 367). This type of fast and loose experimentation is particularly striking when it comes to its resonances with today's digital technologies. Similarly to how video technologies sparked an explosion in creative practice in the early twentieth century, so too have digital technologies sparked a creative explosion in the early twenty-first century. Video poetry was clearly an important precursor to the development of digital poetry, as was concrete poetry, sound poetry, and typographic animation in film (Rettberg 120-30). Although we can recognize digital poetry as a new art world in terms of its networked practices and collaboration between agents previously unfamiliar to each other, it is important to recognize it can also be regarded as an ouroboric practice, continuously feeding off previous iterations of technological poetic experimentation. A notable and well-known video poet is E. M. de Melo e Castro, a Portuguese practitioner and theorist of video poetry. In 1968 he produced the video poem *Roda Lume* and, between 1985 and 1989 *Signagens* (Funkhouser, *Prehistoric Digital Poetry* xxiii), a series of video poems published on VHS

tape under the title *Infopoemas: 1985-1989* (Funkhouser, "A Vanguard Projected in Motion"). Interestingly, 1989 is also the year that C.E.R.N. proposed new protocols for information distribution and so began the repurposing of technology into avenues and tools for future creative expression (Howe).

The impact of the worldwide advent of digital technologies has wide reaching consequences on artistic production. To what extent it will continue to trigger the emergence of a new art world as described by Becker, or profoundly revolutionize poetic expression within the existing one, remains to be seen. David Constantine reminds us that poetry must be agile; it must continually devise new ways to respond to changing circumstances and shapes of human condition (Constantine 41). The human experience has changed and this will be reflected in poetry. Whatever the consequences of the impact of digital technologies within both cultural practice and poetry itself, poetic expression will continue to query the meaning of human existence, both perceptually and intellectually, and hence emotionally, by "foregrounding" the changing nature of the human condition and "situating its means of doing so within structures of technology and art that define its genre as expanding rather than pre-given" (Watten 365).

INTERNET TECHNOLOGIES AND DIGITAL POETRY PRACTICE

The entire history of poetry experimentation is impossible to recount in its entirety here, as kinetic poetry authors such as Adrian, VanDerBeek, Layzer, bpNichol, Pestana, Coelho, Erthos, Kostelanetz, Kac, Laufer, Bret, Fraticelli, Donguy, Zelevansky, etc. were working within other art worlds, such as experimental poetry and visual arts. Here, I am highlighting groups that worked strictly with computer poetry. The late 1980s and early 1990s were crucial to the emergence of a digital poetry art world, as this was the period when most of the initial activity took place. In 1989, the Parisian group L.A.I.R.E. (Lecture, Art, Innovation, Recherche, Écriture) created the computer-based literary journal *Alire*, which was published and distributed on 3.5 floppy disks, in print, and later on CD-ROM. The group included Philippe Bootz, Frédéric Develay, Jean-Marie Dutey, Claude Maillard, and Tibor Papp, and Bootz states that *Alire* is the oldest multimedia journal in Europe. *Alire* was "the first periodical on disk dedicated to the publication of digital poetry" (Bootz n.p.). Before the arrival of CD-ROMs and the widespread adoption of the Internet, the journal was already publishing poetry written for and intended to be read through computers. Bootz believes that "historically, the journal corresponds to the establishment of a 'third stream' in computerized literature, if one acknowledges that hypertext and earlier software texts (...) made up the first two. This third stream being that of animated literature, to which the five authors from L.A.I.R.E. came from backgrounds in aural and visual poetry" (Bootz n.p.).

In the U.S.A., Voyager and Eastgate Systems were publishers of electronic literature mainly during the late 1980s and early 1990s. Storyspace, a hypertext authoring software, and Macintosh's HyperCard software were the main tools used during this period (Hayles 6). Published works were primarily interactive CD-ROMs and hypertext fictions, but in terms of poetry Glazier tell us that "Eastgate lists Robert Kendall's *A Life Set for Two*, Judith Kerman's *Mothering*, Deena Larsen's *Marble Springs*, and Rob Swigart's *Directions*. Of special note are the important works by Jim Rosenberg, *Intergrams* and *The Barrier Frames Diffractions Through*" (136-7).

Philippe Bootz believes that the emergence of computerized literature can be broken down to three main developments that were close contemporaries: hypertexts, software texts, and animated literature. Bootz claims that "the first works in these genres [were] written 'underground' between 1978 and 1985" (Bootz n.p.). At the same time as computer poetry was forming in the 1980s, so too were other literary forms experimenting with video and visual poetry. Later on, it was the proliferation of microcomputers and the Internet that made these experimental pieces accessible to a viewing audience and also provided artists with a new accessible medium with which to experiment and collaborate. Bootz suggests that "computerization

not only encouraged the creation and wide publication of these works, it profoundly modified its own capacity to perform (...) digitality encroached upon literature, not in order to kill it, but to transform it" (n.p.). However, Becker warns us that we should not confuse innovation with the development of an art world, as new worlds develop around innovations but most innovations do not produce new art worlds, and in fact what is crucial is "the process of mobilizing people to join in a cooperative activity on a regular basis" that prompts the formation of a new art world (Becker 311). So it is the communicative and collaborative capacity of computer technology that helps develop digital poetry into a new art world as it allows new networks and collaborations to form between people who would not traditionally be identified as poets, such as computer scientists, Web technologists, or graphic designers.

Talan Memmott believes that, the "actualities of poetic practice in the digital environment are too diverse to permit a comprehensive or coherent taxonomy" (293). This, Memmott argues, is due to the wide variety of technologies available and used in the development of digital poetry; not only this but the very application of these technologies may vary widely from one practitioner to the next. Memmott (304) suggests instead using the term "taxonomadism," as he believes that the idea of taxonomy itself is "contrary to the realities of digital practice". For Memmott, the entire field of digital poetry is dynamic: "the field is open; the practice, form, and categories—the *taxa*—are nomadic" (304). This is a view that is understandable during the emergence of new technologies, however once these technologies mature so too does the corresponding practice. We begin to recognize patterns and characteristics and so the field becomes less nomadic. The focus of this essay is specifically on machine use subversion, therefore the examples discussed are those that most obviously have subverted the primary use of a technology for poetic use. In this instance I refer to machine use subversion as a type of productive resistance (Ettlinger 9) that creates new elements in, and of, the digital environment by using existing elements to explore new truths. It must also be noted, however, that my choice of examples reflects my own sphere of practice, culture, and experience, specifically that of a mixed heritage female, Irish academic in a Northern European University. I reference machine use subversion in this essay within a context of Garoian and Gaudelius's framework for a cyborg identity that enables a subject's agency within digital culture by repositioning the subject to critique digital reproduction in order to imagine and produce new images, ideas, identities, and utopias based on their personal cultural perspectives and desires (339). The examples discussed in this essay are chosen to represent the types of digital poetry that are available on different platforms, from immersive virtual reality using Cave technology or a poetic installation using the now defunct Kinect technology, to an app on a mobile device, an augmented reality poetry book, or a Web-based digital poem.

My first example is *The Rubayaat*, a project I created for the Cave environment at Brown University in order to explore notions of translation, multiculturalism, and the impact of technological affordances on literary expression and reception. *The Rubayaat* is a digital version of the poem *The Rubáiyát of Omar Khayyám* (FitzGerald), one that allows the user to experience, simultaneously, different translations of this work in English, Irish, Arabic, and Farsi. As an immersive, shared virtual reality environment created by using goggles and several pairs of projectors, each pair pointing to the wall of a small room, the Cave provides the reader of *The Rubayaat* with an opportunity to simultaneously access, in the virtual space, alternative versions of the text. Some of these versions may fall outside the mainstream: for example, the digital Cave version not only includes the well-known English language translation by Edward Fitzgerald from the nineteenth century but also a lesser-known English language version by a Mrs. Henry Moubray Cadell (née Jessie E. Nash), a nineteenth-century Persian scholar who dedicated her life to this translation and the study of the Persian language. The Arabic translation of the poem by the twentieth-century Egyptian poet Ahmed

Rami is also included as distorted audio sung by Oumm Khalthoum, a twentieth-century Egyptian singer, accompanied by the original text in Farsi from the eleventh and twelfth-centuries, in addition to an Irish language version intended to represent the research-author's multicultural identity.

Importantly, Cave poetry uses a technology which is enjoying a renewed interest thanks to the resurgence of virtual reality technology that is now more affordable and accessible than ever before, for example in the form of the Oculus Rift, a head mounted virtual reality technology that was developed by Oculus VR. The first Cave was developed at the University of Illinois at Chicago, which has trademarked the acronym Cave Automatic Virtual Environment (CAVE); similar virtual environments are usually referred to with the term "Cave", not used as an acronym (Electronic Literature Organization).

What is interesting in the case of Brown University is that although the Cave technology was initially developed and housed by science departments, such as Computer Science and Applied Mathematics, it has since been used in the department of Literary Arts for digital writing. The user steps into the cube space of the Cave, and by using goggles and a remote control, she freely explores this immersive VR environment. *The Rubayaat* uses multilingual kinetic text and audio, and the user navigates the virtual reality space through movement and a remote control, whilst wearing specific 3D glasses that the computer uses to track the reader's position in the virtual space. The project thus shows how a new art world builds on repurposing of a technology and environment in individual creative works.

FROM VIRTUAL REALITY TO AUGMENTED REALITY

Augmented Reality (AR) is a display system that is a form of virtual reality but one that incorporates real objects, whilst Virtual Reality (VR) is a fully immersive synthetic modality (Milgram et al.). Augmented reality technologies and platforms have been similarly adopted for creative practice. For example, Amaranth Borsuk and Brad Bouse's *Between Page and Screen* is a book containing Quick Response (QR) codes which, when accessed with a webcam, provide a series of poems that chronicle a love affair between two characters, P and S. The collaboration itself, between Amaranth Borsuk, a poet and scholar, and Brad Bouse, a media technologist, again highlights the type of collaboration that Becker suggests produces a new art world. Such collaboration between authors and programmers is particularly common in the field of electronic literature.

*I: * tter* by Zuzana Husárová and Lubomír Panák was also created through similar collaboration. Zuzana is a researcher and electronic literature author, and Lubomír Panák is a Web programmer. *I: * tter* uses contemporary commercial technology as it creates digital poetry with a Kinect 3D sensor. The Kinect is a motion-sensing device developed by Microsoft for game consoles. Through hand movements, the user can browse, erase or mix dialogues that resemble the online communication between what could be people or machines. The text on the projection screen is a remix of selected textual fragments of European Net.Art (Husárová).

Another example of digital poetic practice resulting from "hijacking" contemporary commercial technologies for cultural and artistic practice is Jason Edward Lewis and Bruno Nadeau's *Po.E.M.M. (Poetry for Excitable [Mobile] Media)* project (Lewis and Nadeau). *Po.E.M.M.* is a series of eight mobile iOS apps that deals with themes of belonging, identity, youth, and multiculturalism, and so forth. The touchscreen interactivity of the apps uses the pinch and swipe gestures we have come to associate with iOS technology. The pieces also allow for the creation of your own version, as well as connecting with online social media platforms such as Twitter. Interestingly, the user can even register their own version of an app in a similar fashion to limited edition print artworks, i.e. one of one hundred, thereby raising the status of apps to more traditional "high culture" artworks.

Yet another platform is adopted for *Holes* by Graham Allen, a Web-based digital poem to which Allen adds a ten-syllable line for each day (Allen and O'Sullivan). *Holes* is an example of a digital poem that could not have been written without Web technologies. Initially composed on paper, it began on December 23, 2006, being transferred to the digital medium in 2012 when it was published by James O'Sullivan through New Binary Press. Allen and O'Sullivan state that "*Holes* could not have been bound in a traditional textual construct because of its iterative nature. Only a digital apparatus could be used to realize the author's vision of a text that grew by one line each day" (n.p.). *Holes* is thus another example of digital poetry that has been created through a technical and literary collaboration, and by using a technology originally developed for non-artistic purposes.

In conclusion, this essay has provided a brief snapshot of some of the collaborations and technological subversions that digital poetry invites. Technologies that were originally envisaged for military or commercial use have been quickly subsumed into a new art world of digital artistic practice and poetic expression. Although technology has always had a transformative impact on writing, most of the technologists developing the adopted platforms did not write poetry. In the creation of digital poetry, however, poets are often also technologists, and new collaborative networks have emerged in a way that corresponds with the idea of new art worlds, as per Becker. Many of the examples described in this essay have been created by members of the Electronic Literature Organization, which describes itself online as an international organization dedicated to the investigation of literature produced for the digital medium. In fact, the diffusion of Internet technologies and the ubiquity of computing has allowed for the creation of many new art worlds, and digital poetry is merely one of them. Although a digital poem is a distinct and unique literary artifact, digital poetry can also be seen as an ouroboric practice that builds on the extant traditions of early print, film, video experimentation and net art. Understanding how digital poetry can be seen to operate as an art world can legitimize and recognize the importance of digital culture and its impact on contemporary art and culture.

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ABOUT

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