

New Horizons For The Literary: N. Katherine Hayles' Vision For The Future Of Literature

I first encountered N. Katherine Hayles' work in the fall of 2004, mere months after being introduced to electronic literature in a senior seminar on postmodernism taught by electronic literature theorist and author Dr. Scott Rettberg. The book that I saw referenced in a footnote was called *How We Became Posthuman: Virtual Bodies In Cybernetics, Literature, & Informatics*. Cool! As quickly as I had become an enthusiastic evangelist for electronic literature, the massive overload of books, journal articles, and weblogs I was reading on a daily basis pushed *How We Became Posthuman* further and further down my “to read” list until it wasn't even on the first page anymore.

It wasn't until the spring of 2007 when I traveled down to Maryland to attend *The Future Of Electronic Literature*, the Electronic Literature Organization's annual symposium that I encountered Hayles' work again. Her keynote address discussed why English departments should and *need* to incorporate electronic literature into their programs. During her keynote she gave three ways in which this could be done:

- Department of Media Arts: A department where film, computers, and literature come together.
- An interdisciplinary program which would give students from a number of programs the opportunity to come together.
- English departments incorporate electronic literature into their program curriculum and faculty lines.

In large part, *Electronic Literature: New Horizons For The Literary* is a book about the implementation of electronic literature in the academic classroom. Through a vast study of the

various genres associated with electronic literature she discusses its relation to literary theory and how it challenges and enriches the debates surrounding it. Hayles examines the interconnection between humans and computer technology, arguing that instead of looking at one or the other as superior, the connection between them is what is essential for discussion.

For new readers of hypertext fiction, the disruption to their reading experience can be quite jarring. As I have mentioned, I became involved with electronic literature after doing my undergraduate thesis under the guidance of Dr. Rettberg in 2004. I had been on the Internet for ten years before that and involved with computers for another ten or so. Nevertheless, reading hypertext fiction in the beginning was confusing and hard to do, but also thrilling and all encompassing. I found myself drawn to details I would not have followed or noticed in a bound text. To paraphrase Derrida in *Dissemination*, tampering with my previous programmed reading experience and mannerisms “disturb(ed) everything else” about how I read both in print and electronically(3). I now actively looked for intertextual citations, whether to classical texts like in Virginia Woolf's *Mrs. Dalloway* or via geography in Arnold Bennett's *Anna Of The Five Towns*. Issues of time and space, like those seen in many of Italo Calvino and Jorge Luis Borges' stories, became an obsession of my reading time.

By electronic literature, Hayles means “digital born” literature. This includes genres as varied as interactive fiction, hypertext fiction, digital poetry, and many other styles. Normally, definitions of electronic literature exclude print literature which has been digitized like, for example, the work of a website like Project Gutenberg. An important distinction for electronic literature is the requirement of “properly executed code” in order for the work to be accessible (5). As Hayles points out, because of this many genres of electronic literature have become

widely associated with the software which they run on.

To use *New Horizons* as an introductory primer for electronic literature, the first and final chapters will be the most important which to more closely examine. Hayles begins chapter one, *Electronic Literature: What Is It?*, by examining various genres associated with this very fluid field. Before the World Wide Web came along in 1992 and Mosaic, the first web browser, authoring systems were numerous. In the sixties and seventies, before personal computers, paper was used for most interaction with computers. This was done “largely on paper: on paper tape, on punchcards, and on print terminals.” (Montfort 1) In the late seventies and early eighties the first personal computers become available. Systems to create hypertext at home, however, did not come along until the late eighties. Tools for fiction writers like GUIDE, Hypercard, Tinderbox, and Storyspace, created by Joyce and Jay David Bolter, became available during this time period.

Arguably the most popular genre of electronic literature is hypertext fiction. Early on in their evolution they often relied on text exclusively by linking between blocks of text known as lexias. Hayles discusses four of the best and most popular examples of the genre both on and off of the Internet. Her examples include preweb works written in Storyspace like Shelley Jackson's *Patchwork Girl* and Internet based works like The Unknown Collective's (Rettberg amongst their members) *The Unknown* and Caitlin Fisher's *These Waves Of Girls*.

Patchwork Girl, “important and impressive” according to Hayles, was released as an exploratory hypertext for use in Eastgate's StorySpace (7). Coming near the end of the so-called golden age, *Patchwork Girl* is considered the “culminating work for the classic period” of hypertext fiction (7). It is, as Hayles notes in *Flickering Connectivities in Shelley Jackson's*

Patchwork Girl: The Importance of Media-Specific Analysis “intensely parasitic” of the bounded text novels it is rooted in.

Jackson's work allows the female companion, torn to bits by Dr. Frankenstein at the thought of his creations reproducing, in Mary Shelley's *Frankenstein* to displace Victor Frankenstein as the protagonist, is rebuilt by Shelly who then begins an affair with with the monster. Jackson writes of the female companion that her “birth takes place more than once. In the plea of a bygone monster; from a muddy hole by corpse-light; under the needle, and under the pen” (“birth”). She is Shelley (Mary), (Shelley) Jackson, and (Shelley) (Shelley), Victor Frankenstein's creation, an, according to Landow, “hypertext Everywoman” whose composite image is similar to Bakhtin's idea of multivocality, (200)

The Unknown is a networked hypertext fiction written collaboratively over a number of years. During the time the authors, three primary plus a number of guests, wrote pages and pages of lexias filled with links to both more lexias and audio recordings. This hypertext fiction changed and grew, over the years as the authors and their friends added to the narrative until its completion in 2001. Due to their visibility on the World Wide Web, readers were able to read along and follow any changes to lexias. This avant garde fluidity is one of the most distinguishable characteristics of hypertext fiction on the World Wide Web.

The Unknown is also filled with humor, something not seen in many works of hypertext fiction I have viewed in the past four years. The plot is based around a fictional book tour the members of the Unknown Collective go on, mostly in America but with stops in Canada and Europe as well, to promote their book *The Anthology of The Unknown*. Quickly the tour deteriorates into plot deviations involving drug use, meeting various famous people, physic cult

leaders, and resurrection via alien technology. A fictional feminist critic Cynthia Nitz describes their book:

It's about messianic proclamations, assassinations, sex, drugs, literary theory, sex, life's boundless angst, drugs, name-dropping, intertextuality, meta-writing, sex, art, art imitating life, life imitating art, drugs, and sex. Perhaps I'm overemphasizing art. But, in keeping with the tone of some of *The Unknown*, seriously folks, I jest. (/femcritique.htm)

Due to the lighter plot line and the way in which it is mapped and framed I would strongly suggest this text for newcomers to hypertext fiction. Readers not quite ready for “no ends or boundaries” will appreciate the static ending which can be discovered while exploring *The Unknown*. This work of hypertext fiction is highly intelligible and sophisticated in both writing style. The content will be found eloquent but also easy to follow and explore by both seasoned veterans and new readers of hypertext fiction.

Readers new to the field of hypertext will probably be most comfortable with canonized, link based, hypertext fiction written in Storyspace. *Patchwork Girl*, Stuart Moulthrop's *Victory Garden*, a reworking of Borges' *The Garden Of Forking Paths* for Operation Desert Storm, and Joyce's *afternoon: a story* are three of the most popular works of hypertext fiction written in Storyspace and released by Eastgate Systems during the eighties and nineties. In order to write “a story that changes every time you read it,” Joyce helped to design Storyspace in the late eighties (Kirschenbaum 3). Joyce also built into *afternoon* a “default” route which readers could follow to begin to better familiarize themselves with hypertext fiction and grow more comfortable with clicking on links which led to other parts of it.

Distribution of literary hypertext before the World Wide Web still shared many characteristics with the bounded text. Like a paperback copy of Gilbert Sorrentino's *Aberration of Starlight*, readers were still restricted to a "sustained reading of a self-contained work" when engaged with a CD-Rom of *Patchwork Girl* (Walker-Rettberg 5). Joyce has created terms to denote the difference between preweb and web hypertext: "exploratory" and "constructive" hypertext (Rettberg 2). Exploratory hypertext, like *Patchwork Girl* and *Victory Garden*, is more in line with the "output" readers are so used to from contemporary book culture. Methods of distribution and expectations for the relationship between the self-contained text and readers also remained the same for the most part.

Hayles only briefly discusses them, mostly James Joyce, but since the rise of the novel the past few centuries have had some hypertextesque works of print literature. Difficult novels like *Tristram Shandy* and *Ulysses* can appear to those familiar with the workings of electronic literature to have qualities which "stand out for the first time." (Landow 182) When I read Sterne's novel in an undergraduate course on the history of the novel I came in one morning and remarked to my professor that the novel had a lot of the qualities of hypertext fiction which I had been learning about in Rettberg's seminar on Postmodernism the same semester. Without knowledge of electronic literature I would have never made the connection, which made my reading of Sterne's novel much more pleasurable.

Experimental works of fiction like Pavić's *Dictionary Of The Khazars* and Vladimír Nabakov's *Pale Fire* also exude qualities which are emphasized by an understanding and familiarity with hypertext. As Janet Murray argues in *Hamlet On The Holodeck: The Future Of Narrative In Cyberspace*, "the impending dissolution of Yugoslavia," in *Dictionary Of The*

Khazars, “is preconfigured by the fragmentary account of a mythical lost tribe” of three separate, conflicting, dictionaries (Murray 37). The “multicursally” seen in *Pale Fire* has been seen as a branch between not only modernism and post modernism, but as a text that has hypertextesque qualities (Aarseth 8).

Interactive fiction, the next genre Hayles discusses, incorporates more elements from computer games but also retain the narrative elements other genres of electronic literature incorporate. Popular works of IF like *Adventure* and *Zork* rose to prominence in the late seventies and early eighties. During this time IF adaptations of popular works of prominent authors like Adams, Sir Arthur Conan Doyle, and J.R.R. Tolkien were also created. Hayles cites the more recent work of IF evangelist Emily Short, particularly the challenging *Savoir Faire*, which involves more advanced puzzle solving with literary metaphor. In recent years IF has seen a revival due to Short and others like Nick Montfort, whose *Book & Volume* is a personal favorite as is *Twisty Little Passages: An Approach To Interactive Fiction*, his academic primer on IF.

Genres which move off of the screen and into our personal environment are discussed next. Email novels, like Rettberg's *Kind Of Blue* were very popular in the nineties and are given a brief discussion here. Hayles segways into a discussion of GPS and SMS based narratives which have grown more popular in the past few years. A number of pages are reserved for discussion of Robert Coover's, a well known writer of both print and electronic literature, *CAVE* room. *CAVE* is a virtual reality room where works of literature, Coover has asked prominent figures in electronic literature like William Gillespie, a member of The Unknown Collective, and Noah Wardrip-Fruin, to create works for it, where the user enters a three dimensional room and

navigates a flow of words from the walls with a wand while wearing a virtual reality helmet.

Moving back to a screen based interface, perhaps the most interesting of these interactive narratives is Andrew Stern and Michael Mateas' graphical based *Facade*. *Facade*, featured in *The Atlantic* last year, involves a scenario where you, the user, arrive at your friends Trip and Grace's apartment where they are celebrating their tenth wedding anniversary. Very quickly, despite their cherry facade, you realize the relationship is falling apart. In what I think can be described as a very sophisticated (the AI is very impressive) graphical version of IF, you can explore their apartment, interact or intervene with or on the behalf of either member of the happy couple until you solve their problems or get thrown out of the apartment.

One of the primary problems facing electronic literature in general is the rapidly changing technology of modern western society. Text adventures are now played in emulators. If hypertext markup language is not updated or comes from a closed source software like Adobe Flash, older electronic literature will not work anymore. Electronic literature requires precise code for the reader to even access the work. The CD-Rom which *Patchwork Girl* comes on will soon fall to the same obsolete fate of zip drives and floppy discs. As Hayles notes, books printed hundreds of years ago “can endure for centuries” while older works of electronic literature becoming more difficult to play “after a decade or even less.” (39). The Electronic Literature Organization is working on the ground level to deal with this growing concern. In *Acid-Free Bits: Recommendations For Long-Lasting Electronic Literature* and *Born-Again Bits: A Framework For Migrating Electronic Literature*, Montfort, Wardrip-Fruin and others tackle this issue and offer a variety of solutions for keeping usable but also adaptable for future technology. Among their recommendations include creating work using open source programs and software,

for multi platforms, and supplying comments for code.

In later chapters Hayles introduces the term “intermediation” to describe how electronic literature can be understood as a mediator between humans and computers. She compares afternoon, a preweb exploratory hypertext, to Joyce's web based *Twelve Blue*, which is much less constrained of print culture aesthetics. This discourse to discuss how electronic literature is played, taught, and created contextually continues with a focus on whether humans or the computer should be the focal point for theoretical discussions.

The final chapter, *The Future Of Literature: Print Novels & The Mark Of The Digital*, begins with a bold predictive statement: a significant portion of the twenty first century canon will be electronic literature. Her argument for this relies on the fact that almost all literature today is digital. However, the fact that digital files are involved with the creation of most literature does not, obviously Hayles knows this as well as she proves on the next page, make it electronic literature. I do see the point she is trying to make though. The rise of not only the Internet but new ways of reading, whether Amazon's Kindle, a homebrewed Nintendo DS, or the SMS fiction that is extremely popular in Japan will help accelerate the acceptance of electronic texts.

Whether this will help electronic literature climb into the Canon remains to be seen. Personally, I try to remain optimistic and defiant towards those who rank on electronic literature. By evolving from it, electronic literature is the descendant of the bounded text. It is a threat to the known. However, there is also the continuity Landow describes with the past, as seen in his emphasis on connecting with Derrida, Barthes, and other likeminded theorists. Rettberg's examination of the relationship with Dada and the Avant Garde in his own scholarship looks

backwards while looking forward. For people like me who feel that this process is moving too slowly, it is important to take a step back and think about the pragmatic concerns involved with the humanities. A collapsing economy, decreased budgets for literature programs, and the insecurity of the tenure process are likely factors for electronic literature not finding its way into mainstream thought any time soon. In New Jersey the highest paid employee at a university is not a professor or even a high level administrator but Rutgers football coach Greg Schiano, whose gross income for 2007 was approximately 1.8 million dollars, which included an \$800,000 home loan which the university is paying (Ivory Tower Inc. 2). The government will not be coming along to bail out literature departments to help them add classes to their schedules. Even the collaborative efforts I have described earlier are difficult due to these budget and scheduling issues. The off putting nature of electronic literature will scare away many scholars, already up to their ceilings in books and articles trying to keep up with their own fields, from experimenting with a new field of study.

What I like best about Hayles' book is the fact that there is enough material to accommodate both readers new to the genre and those who are already familiar with electronic literature. There is also a website (newhorizons.eliterature.org) which offers supplemental essays, sample classroom syllabi, and author biographies. A lot of chapters two-four is new to me and fascinating even if not one of my primary interests. The recent Electronic Literature Collection CD, Hayles and Rettberg along with others edited, which offers academics sixty works of electronic literature for use in the classroom on the single CD. A copy of this CD is included with every copy of *New Horizons* as well and is available for free online. It does not include the classic Eastgate works of Joyce, Moulthrop, and Jackson that have been discussed

here, it does include Jackson's excellent *My Body--- A Wunderkammer*, *Cruising*, Joyce's *Twelve Blue*, and Moulthrop's *Reagan Library*.

No matter what the future brings, I do not feel that electronic literature's role as a descendant of the bounded text requires it to replace print culture completely. I will be clear: in no way or shape do I believe print culture is a relic that needs to be destroyed. To use a science fiction metaphor, electronic literature is not the Borg of *Star Trek* wishing to assimilate or the Daleks of *Doctor Who* wishing to exterminate print culture. I have a strong eagerness for a multidisciplinary environment where scholars of both hypertext and print can work together for the betterment of each of their specializations. As scholars enter this brave, unknown, new world I can only approximate in a predictive manner what the future will bring. I am sure those who stood with Gutenberg did not know what the next evolution would bring either.