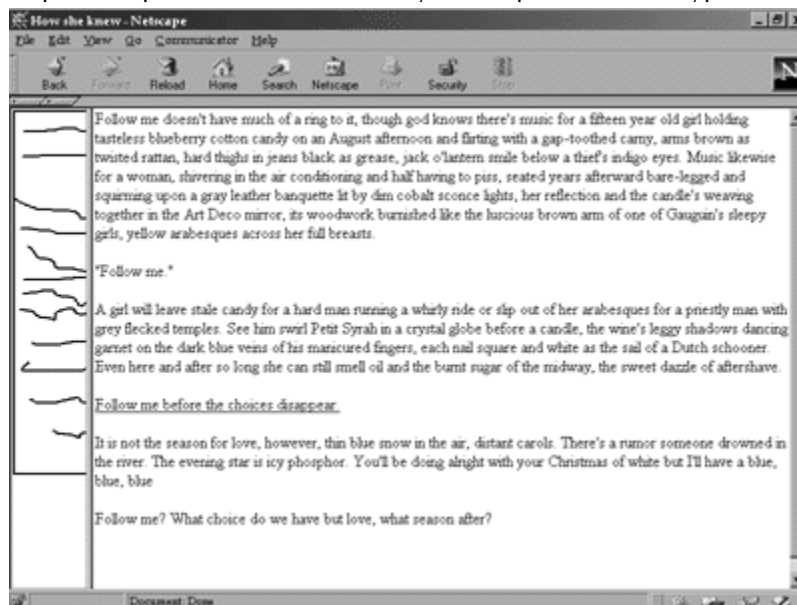


Entangled in Nets of a Different Order: Hypertext Liberations, Constraints, and Tyrannies

Richard Higgason

"Follow me." Lucy reads these words on the screen as she begins Michael Joyce's "Twelve Blue." As a reader, Lucy knows that she has several options at this point. She could click on the words "Follow me before the choices disappear" or she could choose to click one of the twelve colored lines that, like multi-colored threads, weave across the left side of her monitor. Each option offers a different entry point into the text. Depending where she clicks, Lucy will soon meet (among others) Javier, Eleanor, Samantha, Lee, Lisa, Aurelie, Tevet (known as Beth), or a minor character, who is the girlfriend to a drowned boy. Together, these options represent the multilinearity that is possible with hypertext.



WORKS AND DAYS 33/34,35/36 Vol.17&18, 1999-00

They are the way that hypertext, as Robert Coover explains, frees us from the tyranny of the line ("The End of Books"). These options are one way that hypertext has distinguished itself from past media.

In comparison to print narratives, Coover points out that "much of the novel's alleged power is embedded in the line, that compulsory author-directed movement from the beginning of the sentence to its period, from the top of the page to the bottom, from the first page to the last" (Coover, "The End of Books"). If Lucy was reading a traditional novel, she would not be faced with such a decision point. She would instantly know where she was supposed to go next: to the next page. Faced with the choice of where to go next, Lucy must accept the fact that the selection she makes will impact her reading; the author is not leading her by the hand through the single path of the narrative. With hypertext, it is as if the author has opened the gates to his garden and Lucy is free to wander at will.

This new freedom has led Jay Bolter to discuss the shifting role of the reader: "The role of the reader in electronic fiction therefore lies halfway between the customary roles of the author and reader in the medium of print" (158). George Landow, however, sees the shift as much more extreme. He states that there has been a convergence between the reader and the author: "the figure of the hypertext author approaches, even if it does not entirely merge with, that of the reader; the functions of reader and writer become more deeply entwined with each other than ever before" (71). Landow labels the hypertextually-empowered reader as a "reader-author" (117). According to Landow, the shift of authorial powers from the author to the reader occurs in three aspects of hypertext: "in the reader's abilities to choose his or her way through the meta-text, to annotate text written by others, and to create links between documents written by others" (71). As Lucy faces "Twelve Blue," it seems that she fully experiences this shift in authorial power by having the ability to go where she pleases, add to the text what she pleases, and create pathways for others to follow (just like the author).

Or so it seems. Yet, Lucy's freedom is not absolute. In "Twelve Blue" there are roughly ninety-six text spaces. As Lucy enters the text, she has access to only thirteen of them. The most that Lucy ever gains access to at any given point is twenty-eight spaces. She is not completely free to wander. Instead, we find that while the author has opened the gates to the garden, he has also laid out pathways, complete with "Keep off the Grass" signs. As Bolter states:

The author may put any number of restrictions on the reading order. The extent of the reader's choices and therefore the reader's freedom in examining the literary space depends upon the links that the author creates between episodes. The reader may have to choose from among a few alternatives or may range widely through the work. Each author can relinquish as much or as little control as he or she chooses (123).

There may be multiple pathways, but the access is still ultimately controlled by the author.

When speaking in general about hypertext, it is important to keep in mind that the author determines how much control to relinquish. Early hypertexts, such as Michael Joyce's *Afternoon*, gave up very little control. For example, Joyce uses guard fields to limit access to some spaces until others have been read. As described in the Storyspace manual, "when you create a stand-alone hypertext for distribution to a wide audience, you often want to control what links will be followed in various circumstances. . . . *Guard fields* give you [the author] this control" (Cohen et al. 108). Joyce made ample use of guard fields when creating *Afternoon*. From the space entitled, "begin," readers can go to the space entitled "gift of hearing" only if they have already been to the space

begin

I try to recall winter. <As if it were yesterday?> she says, but I do not signify one way or another.

By five the sun sets and the afternoon melt freezes again across the blacktop into crystal octopi and palms of ice--rivers and continents beset by fear, and we walk out to the car, the snow moaning beneath our boots and the oaks exploding in series along the fence-line on the horizon, the shrapnel settling like relics, the echoing thundering off far ice. This was theessenceofwood, these fragments say. And this darkness is air.

<Poetry> she says, without emotion, one way or another.

Do you want to hear about it?

entitled, "calm" and have not been to the space entitled "post-feminist." If the readers have been to "no4." or "here" then they can go to "blacktop." If they've been to "blacktop" and "home" but have

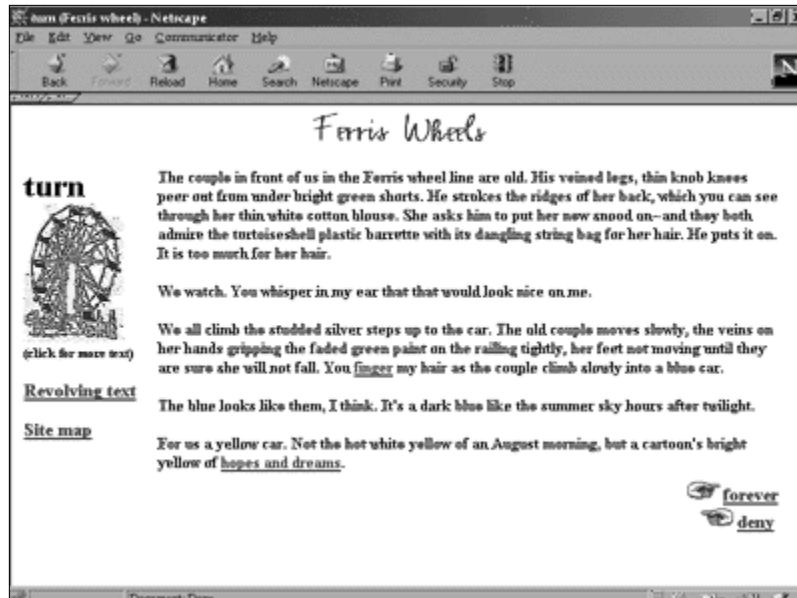
not been to “die?” then they can go to the space entitled, “Werther.” This is just one way that *Afternoon* controls the reader’s movements.

In addition, Joyce did not create text links using the standard Storyspace linking tool. Instead, he created them using the guard fields. From the space “begin,” the reader can click on “she,” “no,” “octopi,” “yes,” “hear,” “winter,” “poetry,” “the essence of wood,” “shrapnel,” “moaning,” “yesterday,” “blacktop,” “crystal,” “fence-line,” “fragments,” “relics,” or “thundering” in order to go to other spaces. Yet, there is no indication that these words are the ones that are linked. Joyce, in his instructions, remarks, “I haven’t indicated what words yield, but they are usually ones which have texture, as well as character names and pronouns” (“read at depth”). In “begin” there are a number of words that yield. Other spaces, however, do not provide readers as many options. The often quoted space, “work in progress,” for example, has only one text link connected to the word “closure.” Clicking on any other word will take the reader back to “begin.” Joyce also states in his directions, “The lack of clear signals isn’t an attempt to vex you, rather an invitation to read either inquisitively or playfully and also at depth. Click on words that interest or invite you” (“read at depth”).

In addition to Joyce’s stated intention, the other result is that readers have less control over their own navigation. They not only don’t know what conditions will open up one space versus another, but they also don’t know what words are linked.¹ Within *Afternoon*, Joyce remarks that there are many ways that this is more controlling: “it’s all a fraud: the illusion of choice wherein you control the options, the so-called yielding textures of words... All of it typical, control-oriented male fantasy...!” (“dialectic”) Yet, *Afternoon* is not a typical hypertext.

Most hypertexts do not hide the textlinks from the reader, nor do most hypertexts use guard fields as extensively as *Afternoon*. On the other end of the spectrum, some recent hypertexts permit full access to all of the spaces. “Ferris Wheels” by Deena Larsen is one example of this sort of hypertext. In “Ferris Wheels,” Larsen has only a few text links within the narrative. She provides a “Next” and “Previous” option at the bottom of each space for readers who want a more linear narrative. At the same time, however, she provides an image of a Ferris Wheel on the left hand side of each page. From this image, readers have access to all the spaces in the hypertext. Larsen also provides a space that serves as a site map. This site map provides access to all the spaces in the hypertext but has the added benefit of indicating the space names as well. As an

author, Larsen has worked to provide the reader with as much navigational freedom as possible.



Most hypertexts, however, fall somewhere between the control found in Joyce's *Afternoon* and the freedom found in Larsen's "Ferris Wheels." Most hypertexts clearly indicate the available links while providing only a handful of link options. The point that needs to be emphasized is that it is the author's choice how many pathways to provide through the text. The reader is constrained by the paths that the author has already established.

Another aspect of Landow's shift in authorial power is that the reader can freely annotate and add links to the text written by others. This is an extension of comments that Bolter made in a hypertext accompanying *Writing Space*:

As long as you keep the text in the electronic medium, you may change it as you see fit and hand the changes to others. You may want to indicate that you have changed the text. On the other hand, you may not, but then your readers will probably falsely assume that the original author was responsible for the text that you wrote. *All readers should be aware that anything in the text may have been added by someone other than the original author* (emphasis added).

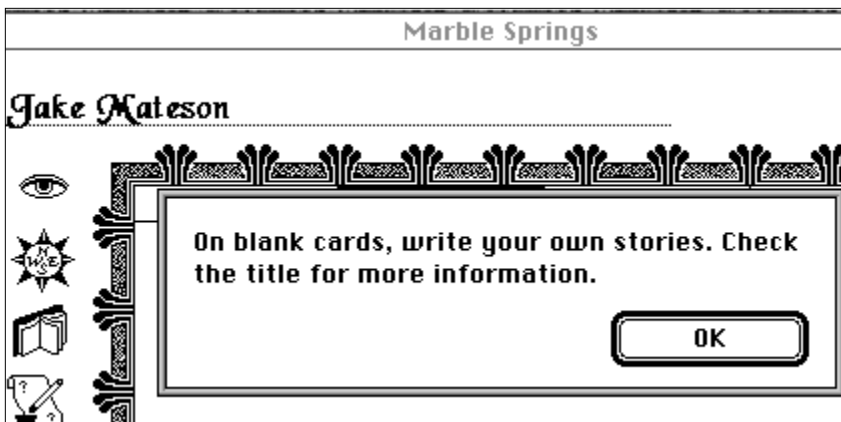
As Bolter points out, in an electronic text it is very difficult to confirm what is the author's original text versus what has been added.

The Bloomberg News hoax emphasizes just how difficult it is for readers to distinguish between the author's original text and text added by an outside party. On April 7, 1999, someone created and posted to a personal web site a page that looked just like the Bloomberg News. On this imposter page, the outside party posted information that Pairgain Technologies was being bought out by an Israeli company. With this false news, the price of Pairgain Technologies soared (Wyatt). This hoax illustrates Bolter's warning that "anything in the text may have been added by someone other than the original author." Yet, is it accurate to say that this is power which most readers share? Is it truly possible for Lucy to add in a scene where Javier and Aurelie reunite?

If the hypertext narrative was written in Storyspace, Lucy would be required to own a copy of Storyspace to add to the text. If she did not own Storyspace, Lucy would be out of luck. Hypertext narratives created in Storyspace do not come in a form that is readily augmentable by the reader.

Since "Twelve Blue" is on the World Wide Web, Lucy has a much easier time adding text to the narrative. The only catch is that she must do it on her own personal web site (as was done in the Bloomberg News hoax). Lucy can download images and code to permit her to mimic Joyce's layout, but the final product would have to remain on her own web site. While she could add links from her site to "Twelve Blue," she would not be able to create links from "Twelve Blue" to her additions. Access to the server where the original narrative resides is restricted to official authors.

This is not to say that there are not hypertexts that are designed by the author to be augmented by the reader. *Marble Springs*, by Deena Larsen, is one hypertext where the reader is invited to add



to the text. In *Marble Springs*, there are spaces that the author has purposely left blank. When readers reach one of these empty spaces, a pop-up window appears and instructs them, "On blank cards, write your own stories." Yet, even here, the reader's freedom is constrained. The author has pre-determined spaces where the reader is invited to write. Additionally, in the copyright information, the reader is further instructed:

Please remember, however, that all rights to the work and the programming are reserved. No part of this work, *even when you change it*, may be reproduced or transmitted in any form by any means, electronic or mechanical, or by any information storage or retrieval system without written permission from the publisher.

Instead, if readers send their additions in to Eastgate, the author and publisher will decide which updates to make in the next version².

Since hypertext exists as electronic text, it is possible for any narrative to have been altered without the reader's knowledge. Yet the distribution system that surrounds the original author's text (be it a disk, CD, or web site) makes it unlikely for an individual reader's additions to the original author's text to receive wide distribution. Authorship goes beyond merely writing words on a screen. There is an economics of authorship that excludes the reader. Thus, even an augmentable hypertext falls short of creating an author of a reader.

Up to now, much of the discussion surrounding hypertext narratives has overstated the role of the reader. As I have tried to illustrate, it is the author who remains firmly in control of the reader's liberties within the text. As much as we might like to see readers become authors, their role is still dependent upon decisions that the authors have made. As Jay Bolter confesses:

the reader's freedom can never be absolute. The rhetoric of hypertext (and all of us who work in hypertext are guilty of this exaggeration) tends to be a rhetoric of liberation. We sometimes talk as if the goal of electronic writing is to set the reader free from all arbitrary fixity and stability of the print culture. In fact, hypertext simply entangles the reader in nets (or networks) of a different order (quoted in Tuman 60).

If it is true that in hypertext readers and authors are free from the tyranny of the line, then this freedom comes at a price.

Espen Aarseth, for one, even denies that hypertext frees us from the tyranny of the line. "The reader's freedom from linear sequence, which is often held up as the political and cognitive strength of hypertext, is a promise easily retracted and wholly dependent on the hypertext system in question" (*Cybertext* 77). Comparing electronic hypertext with print-based codex, Aarseth declares that the electronic hypertext has controlled access while the codex book permits random access (63). That is, readers of codex books have the possibility of flipping forward or backward at will, which is not always possible with electronic texts. Aarseth thus concludes, "In a hypertext. . .to get to a specific passage you must typically follow an arbitrary path involving other specific passages before you get to what you want. In other words, hypertexts without free text search capabilities are more, not less, linear than the codex" (63). For Aarseth, controlled access is equivalent to linearity.

Aarseth seems to be fairly accurate if one is considering just the physical aspect of the codex. Yet, Bolter indicates that there is a conceptual as well as a physical space to a text. "Every written text occupies a physical space and at the same time generates a conceptual space in the minds of writers and readers. The organization of writing, the style of writing, the expectations of the reader—all of these are affected by the physical space the text occupies" (85). When looking at printed text, Coover's and Aarseth's different positions are due merely to the fact that each emphasizes different physical aspects of the codex (at the expense of other aspects). Coover recognizes that physically one page must follow another, while Aarseth notices that there is no physical barrier to a reader who decides to flip around in that very same codex.

When considering the different types of codex, it is clear that certain forms have emphasized the linearity aspect of the codex while others have emphasized the random access quality. The encyclopedia, dictionary, and most reference books have made use of the ability for readers to randomly access the text. In most cases, these texts have broken down the subject matter into discreet units and have combined those units in such away as to facilitate the reader's search (for example, by using an alphabetical organization). With such texts, one unit generally has no connection with immediately preceding or proceeding units. Thus, as a reader randomly accesses the text, he or she will not find any confusion or dissonance due to the units that have been passed over.

Most novels, on the other hand, conceptually build upon the fact that one page follows another. Aarseth is correct in stating that readers have the ability to randomly access these texts, yet, to do so comes at a price. The reader who jumps forward to discover if a hero is successful or to learn the identity of the murderer does so knowing that he or she will diminish some of the pleasure of the text. Clearly, most novels are *meant* to be read in a linear order. Therefore, we can say that the conceptual level of the novel form emphasizes the physical aspect of the linearity of the codex while reference materials more often emphasize the reader's ability to randomly access the text.

Physically, electronic hypertext without search capabilities does not permit the same sort of random browsing that is present in the physical form of the codex. Yet, before defining the hypertext as a controlled-access medium, it is necessary to consider the conceptual level as well as the physical. This is where defining hypertext merely on its physical qualities of electronic nodes and links is misleading.

When Ted Nelson coined the term hypertext (in 1965), he simply meant "non-sequential writing—text that branches and allows choices to the reader" (0/2). Confusion arises, however, from the fact that hypertext has been so closely associated with electronic text that one assumes hypertext must necessarily equal electronic text. This is exactly the mistake that Aarseth makes when he states:

When Ted Nelson first coined the word hypertext in 1965, he was thinking of a new way of organizing text so that it could be read in a sequence chosen by the reader, rather than followed only in the sequence laid down by the writer. However, since codex texts can also be read in sequences determined by the reader, what he in fact suggested was a system in which the writer could specify which sequences of reading would be available to the reader (77).

Ted Nelson, however, makes it perfectly clear that he was not restricting hypertext to the computer screen. Instead, he states that "a magazine layout, with sequential text and inset illustrations and boxes, is thus hypertext" (1/17). While the concept of hypertext seems best suited for the computer screen (Nelson 0/2), it is possible—to a certain degree—to employ it even in print media. By overlooking this fact, Aarseth overstates the controlling aspects of the physical nature of electronic text while applying those aspects to the conceptual nature of hypertext.

The development of hypertext, thus far, has tried to emphasize non-linearity and reader interaction. While it is possible to construct a hypertext that is far more controlling and linear than any codex novel (simply by only providing one link per lexia), hypertext writers have sought to find ways to provide readers with more links and more control over their own navigation of the text (by providing site maps and multiple links per lexia).

When we look at both the conceptual and the physical aspects of the textual forms, we find that any declaration that one media is absolutely more controlling than the other one is bound to be an overstatement: we would simply be privileging one physical aspect of the medium at the expense of another.

Perhaps another way to get at the distinction that Aarseth is trying to make is to say that electronic hypertext is not a full-disclosure medium. When I pick up a book, I can tell by the size of it roughly how long it is likely to take to read. Even without page numbers, I can tell that *War and Peace* is likely to take longer to read than *Of Mice and Men*. In addition, as I read through the text, in the linear order of the pages, I can easily determine my progress through the whole. That is, as my bookmark moves, I can tell in a glance if I'm near the beginning, in the middle, or coming close to the end. This mark of progression is significant because it affects the speculations that I make. Early in a mystery novel, for example, I keep a fairly open mind to the suspects (especially if one seems particularly "guilty"). Later in the novel, however, I begin to accumulate possible evidence against one main character. While I'm more willing to make major modifications to my conjectures in the beginning of the novel, as the end approaches I am more likely to make only minor revisions to my view (even if the view, in the very end, is ultimately wrong).

Finally, when I've finished the book, I know that if I've followed the linear order of the book from the first page to the last, I've read all that there is. While there may be a reference or a nuance that I overlooked, it is unlikely that there is part of the text that I've missed.

These features of what I'm calling a "full-disclosure" medium describe not only a codex book, but also other storage mediums such as scrolls and audio and video tapes (which are physically scrolls). Because these storage media do not have a standard size, their physical size gives an indication of the amount of content they contain as well as the users' physical placement when accessing that content.

Before the advent of the computer, the most common non-full-disclosure media were broadcast media. The viewer or listener of

these media does not necessarily know how long a program will last. Even standard conventions such as the one hour drama or the half-hour sitcom are regularly extended by continued episodes.

The computer, however, combines many of the features of the broadcast media along with those of “full-disclosure” storage media. When readers pick up a disk or access a Web-based story, they have no idea how long that story is likely to be. File size is not a reliable indicator due to the fact that a large file size could indicate quite a bit of text or could simply indicate the presence of graphical, audio, or video components. Some systems (such as Eastgate’s Storyspace) and some authors (such as Deena Larsen with “Ferris Wheels”) have attempted to provide readers with an indication of the size of the text by disclosing the number of nodes involved. This is also an unreliable indicator of the size due to the fact that there is no limit to how much text a node can hold. For example, based on the number of nodes, one would expect Larsen’s “Ferris Wheels” (with 17 nodes) to be much shorter than Arnold’s “Lust” (with 38 nodes). Yet, there is quite a bit more text involved with Larsen’s hypertext than with Arnold’s.

In addition, as I read through a hypertext, I have very little idea where I am in relation to the whole text. Site maps are useful in helping readers determine where they are and the path necessary to get to where they might want to go, but none (to my knowledge) provide readers with an idea of where they have been or which areas have not yet been visited.

Last, unlike all other media, when the reader of a hypertext comes to the “end” there is no way for the reader to be certain that he or she has viewed all the content. As Jim Phelan and Ed Maloney state, an end spot (a lexia without outward links):

offer[s] the reader a choice to continue with the narrative or to end there. If we were to end our reading, we would do so with the knowledge that we had not ‘finished’ the narrative. . . . This description indicates that completing the reading of a hypertext fiction involves more than reading from a clearly marked beginning to a clearly defined endpoint—from the first to the last lexia.

This is a feature that is unique with cybertexts. With other storage or broadcast media, the audience is led through the content. If the audience experiences the content from the prescribed beginning in a linear fashion to the prescribed ending, they are rewarded with

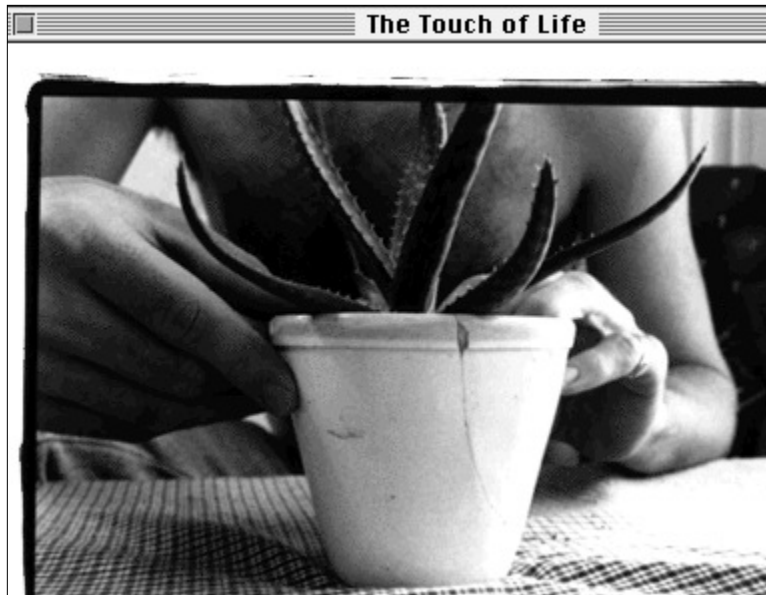
the knowledge that they have experienced the whole of the available content. The responsibility lies with the sender. With hypertext, however, the readers are responsible for seeking out the content.

Another responsibility that the reader faces is determining when and where to end. This very issue has been the topic of much discussion in hypertext studies. Jane Douglas was one of the first to take up the issue of determining where to end a hypertext reading. According to her, readers eventually reach a point where the majority of the narrative lines are resolved. Douglas sees this as the end—a point of closure to the text (172). Michael Joyce, on the other hand, declares that “Closure is, as in any fiction, a suspect quality.” He suggests that the reader continues until, “When the story no longer progresses, or when it cycles, or when you tire of the paths, the experience of reading it ends.” (“Work in Progress,” *Afternoon*). While Joyce’s advice is well taken and accurate, the concern for all but the most confident readers is not one of when to end, but when to end with the maximum amount of satisfaction from the reading experience. That is, how do readers determine that they have actually “finished” a piece of hypertext versus merely abandoned it?

Phelan and Maloney suggest that readers read “all of the lexias.” This approach is certainly the goal of many readers who are new to hypertext. After all, when one brings to hypertext the reading approach that has been cultivated from print media, one knows that an end has been reached when there is no more available text. Yet, finding all of the lexias is not an easy task.

With the responsibility for finding new content shifting from the sender to the receiver, readers have to face the possibility that they may miss or overlook some of the available content. Joyce even states as much in *Afternoon*, “there are likely to be more opportunities than you think there are at first. A word which doesn’t yield the first time you read a section may take you elsewhere if you choose it when you encounter the section again; and sometimes what seems a loop, like memory, heads off again in another direction” (“Work in Progress”).

I was made painfully aware of the possibility of unread content with “Completing the Circle.” This is a hypertext that I’ve read multiple times. So many, that I felt I knew all of the nooks and crevices of the text. I had even taught the text in a class. I was fairly sure that I had seen all content that “Completing the Circle” had to offer. Yet, one day when my wife was reading the story, I saw an image of a plant pot on the screen. In all of my readings, I had never

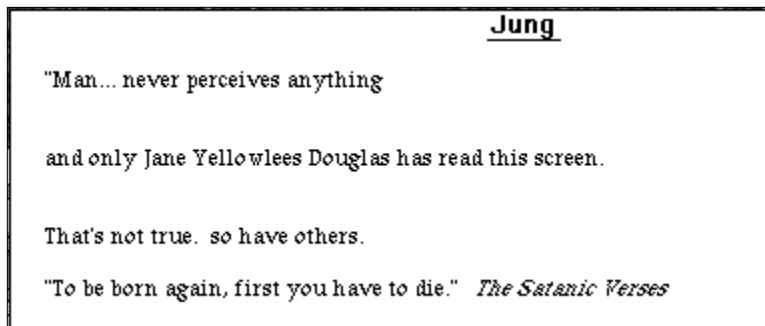


encountered this picture. Obviously, my wife had found a pathway that I had not yet experienced.

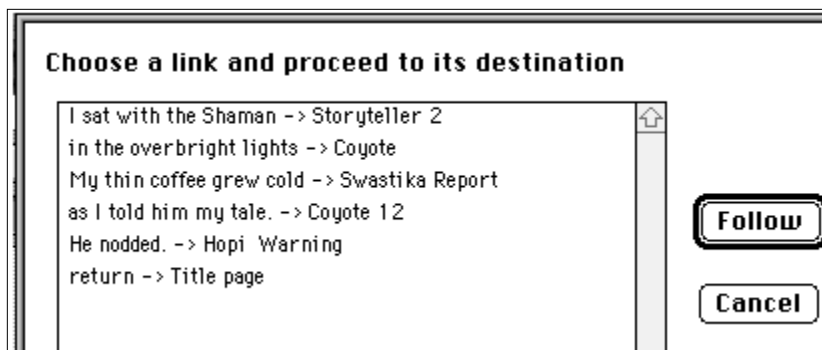
With some hypertext systems, there are ways that readers can minimize the possibility of unread pathways. Eastgate hypertexts, for example, inform the reader while the text is loading how many nodes constitute the hypertext. A concerned reader could keep a tally of how many spaces have been read. Yet, this is not a perfect system since it is not uncommon for hypertext writers using Eastgate's Storyspace to use blank nodes as a way to help group and organize the content. For example, Michael Joyce's *Afternoon* contains three blank nodes ("backlink," "bad fiction" and "Untitled").

Another way that the system or the author can minimize the possibility of readers missing content is by providing a site map. On the World Wide Web and on Eastgate Hypertexts, many authors provide a site map in order to provide a graphical representation of the content. As Bill Bly instructs, readers can "surf the map" to see if they have missed anything ("Direct4").

At the same time that authors are providing means for readers to determine and access unread portions of the text, they are also finding ways to hide text. In *Afternoon* there is a little known space entitled "Jung." This space has no links into or out of it. In fact, the only way to get to it is through opening the hypertext with a full version of Storyspace. Even though this space is part of the complete text, it is hidden from most readers.



Likewise, Deena Larsen, in "Century Cross" finds a new place in which to hide text from readers. Storyspace allows authors to name the links. These link names will appear anytime readers hit the key combination or the button to display all possible links. By carefully naming her links, Larsen creates poems and short narratives within this list of links. Readers who merely follow the default and text links will never know that these texts exist.



These "Easter eggs" are unique to hypertext. Finding them provides readers with a sense of pleasure; they know that their diligence with the text has repaid them with a secret space—a place known only to the author and a select few. At the same time the possibility of undiscovered Easter eggs and unread pathways can serve to disempower (rather than empower) readers.

In order to understand how the possibility of unread text can actually disempower readers, one must first understand some of the process by which readers read texts and especially hypertexts. One comparison that Phelan and Maloney make between reading hypertexts and reading print-based novels is that both involve the process of recursion. Simply put, the act of recursion in reading involves "revis[ing] our understanding of what we have read so far and of the overall trajectory of the narrative. It is an experience

much better described by a complicated feedback loop than by a straight line." With hypertext, this process of recursion is elevated from an aspect of reading progression to the main aspect of reader progression. Moulthrop and Bolter indicate as much when they discuss "reading multiply." As Bolter explains, "To read multiply is to resist the temptation to close off possible courses of action; it is to keep open multiple explanations for the same event or character" (142-3). In other words, readers of hypertext must be aware that every lexia they encounter is subject to recursion.

The result of this constant state of recursion is that readers are rarely on certain ground in regards to the overall shape of the narrative. Instead of a firm structure, readers of hypertext construct what Michael Joyce calls, "contours," which "are the shape of what we think we see as we see it but which we know we have seen only after we move over them and new contours of our own shape themselves over what they have left us. They are, in short, what happens as we go, the essential communication between the artist who gave way and the viewer who now gives ways to see" (Joyce, *Of Two Minds* 207). Not as firm as the readings or interpretations that come from most paper-bound narratives, contours are how readers give shape to a narrative as they read multiply. It is a shape that is always in flux so long as the reader is reading.

As Phelan and Maloney point out, this constant state of recursion is also possible (if not prevalent) in print texts as well. They explain that Robert Coover's "The Babysitter," "involves the reader in the continual revision of the nature of the action as well as the nature and purpose of the narrative." Yet, there is a definitive end point to "The Babysitter." At the physical point where words stop on the page, readers know that the process of recursion can come to an end. At this point, readers can determine if the end affirms, denies, or leaves ambiguous their speculations about the narrative. With hypertext, readers are denied this definitive endpoint.

The result is that readers of hypertext are likely to spend much more time reading a hypertext narrative than a print narrative. Jane Douglas reports that the average amount of time spent reading a hypertext can be "up to six times as long as reading print narratives" (164). While some of the time difference can be credited to download times of pages and the differences between reading on the screen versus the page, one must wonder where the bulk of the time goes.

I believe that much of the time with reading a hypertext is spent seeking out new content (as well as re-reading or re-skimming older content). Readers who are in a constant state of recursion

want to assure that they have read all that there is before they decide that they have finished. Jane Douglas is attributed with finding the “Jung” space in Joyce’s *Afternoon*, yet one must wonder how she went about finding it. The only way to do so would entail opening the text in a full version of Storyspace and meticulously going through the list of spaces in order to discover one that has been missed. To go to that trouble, Douglas must have been extremely concerned that there was something in the text that could modify or deny her conclusions about *Afternoon*. I do not believe that Douglas is alone in her concern; many readers feel likewise. There is always the possibility of an unfound lexia that completely affirms or denies the speculations that the reader has been making, and it is this space that the reader seeks.

Whether there is such a space or not, the fact that there is the *possibility* of unread spaces leaves many readers unsure of their conclusions. During an NEH Summer Institute entitled “The Written Text and Human Dialogue,” one participant cornered Michael Joyce and demanded to know if the little boy had lived or died in *Afternoon*. For such readers, the need for conclusive affirmation weighs heavily. They worry that they are missing something important. Even Espen Aarseth mentions that he felt “constantly sidetracked, turning and turning in the dilating text, dead sure that important things were being whispered just beyond my hearing” while reading *Afternoon* (“Nonlinearity and Literary Theory” 70). For these readers (and others like them), the possibility of an unread space can become disempowering. The space haunts them and denies readers not closure (which is indeed a suspect quality), but a conclusion . . . the possibility of an end.

This is the promise and the curse of hypertext. With a narrative that “changes every time you read it,” (Joyce, *Of Two Minds* 32) we gain a narrative that always promises the possibility of something new. At the same time, we gain a narrative that resists the label “finished.”

Notes

¹ For this reason, some readers do not use the text links at all. Instead, these readers bypass Joyce’s carefully constructed guard fields and use the “reveal links” button that is available with the browser, which provides a complete list of links associated with each space.

² Larsen states that this restriction was put in against her wishes, which just shows that even acknowledged authors sometimes lack the authority to make authors of others (conversation).

Works Cited

- Aarseth, Espen J. *Cybertext: Perspectives on Ergodic Literature*. Baltimore: Johns Hopkins, 1997.
- . "Nonlinearity and Hypertext Theory." *Hyper/Text/Theory*. Ed. George P. Landow. Baltimore: Johns Hopkins UP, 1994. 51-86.
- Bly, Bill. *We Descend*. Diskette. Watertown: Eastgate, 1997.
- Bolter, Jay David. *Writing Space: The Computer, Hypertext, and the History of Writing*. Hillsdale, New Jersey: Lawrence Erlbaum, 1991.
- . *Writing Space, A Hypertext*. Diskette. Watertown: Eastgate, 1990.
- Cohen, E. A., et al. *Getting Started with Storyspace for Macintosh*. Watertown: Eastgate, 1996.
- Coover, Robert. "The End of Books." *New York Times Book Review* 21 June 1992: 1+. CD-ROM. UMI-Proquest. 1997.
- Douglas, J. Yellowless. "'How Do I Stop This Thing?': Closure and Indeterminacy in Interactive Narratives." *Hyper/Text/Theory*. Ed. George P. Landow. Baltimore: Johns Hopkins UP, 1994. 159-188.
- Joyce, Michael. *Afternoon: A Story*. Diskette. Watertown: Eastgate, 1987.
- . *Of Two Minds: Hypertext Pedagogy and Poetics*. Ann Arbor: U of Michigan P, 1995.
- . "Twelve Blue." *Eastgate Systems, Inc.* 1996. 20 April 1999. <<http://www.eastgate.com/TwelveBlue/>>
- Landow, George. *Hypertext: The Convergence of Contemporary Critical Theory and Technology*. Baltimore: Johns Hopkins UP, 1992.
- Larsen, Deena. "Century Cross." *Eastgate Quarterly Review of Hypertext 2.2* (Winter 1995). Diskette. Eastgate.
- . Conversation. 28 May 1999.
- . "Ferris Wheels." *Iowa Review Web*. 2 Feb 1999. 20 April 1999. <www.uiowa.edu/~iareview/tirweb/tirweb.htm>.
- . *Marble Springs*. Diskette. Watertown: Eastgate, 1993.
- Nelson, Ted. *Literary Machines*. Sausalito, CA: Mindful, 1990.
- Phelan, James and Edward Maloney. "Authors, Readers, and Progressions in Hypertext Narrative." *Works and Days* 33/34, 35/36 17&18.1 (2000): 265-277.

- Tuman, Myron, ed. *Literacy On-line: The Promise (And Peril) of Reading and Writing with Computers*. Pittsburgh: U of Pittsburgh P, 1992.
- Van Mantgem, Michael. "Completing the Circle." *Eastgate Quarterly Review of Hypertext 2.2* (Winter 1995). Diskette. Eastgate.
- Wyatt, Edward. "Fake Internet News Account Sends a Stock Price Soaring." *New York Times on the Web*. 8 April 1999. 11 May 1999. <www.nytimes.com>.