Feral Hypertext: When Hypertext Literature Escapes Control

Jill Walker University of Bergen Postboks 7800 5020 Bergen +47 55588431

jill.walker@uib.no http://jilltxt.net

ABSTRACT

This paper presents a historical view of hypertext looking at preweb hypertext as a domesticated species bred in captivity, and arguing that on the web, some breeds of hypertext have gone feral. Feral hypertext is no longer tame and domesticated, but is fundamentally out of our control. In order to understand and work with feral hypertext, we need to accept this and think more as hunter-gatherers than as the farmers we have been for domesticated hypertext. The paper discusses hypertext in general with an emphasis on literary and creative hypertext practice.

Categories and Subject Descriptors

J.5 [Computer Applications]: Arts and Humanities – *literature*.

General Terms

Design, Human Factors, Theory.

Keywords

Hypertext, links, emergence, folksonomy, ethnoclassification, fiction, semantic web, literature, history, domestication.

1. DOMESTICATION

Feral (a): Of an animal: Wild, untamed. Of a plant, also (rarely), of ground: Uncultivated. Now often applied to animals or plants that have lapsed into a wild from a domesticated condition. (Oxford English Dictionary)

In the last decade there has been an increasing interest in the domestication of technology, that is, in how technology has become an integral part of our daily lives [3]. One of the assumptions in this research is that computers and other technology need to be "tamed" and made approachable and safe as part of the process of entering our homes and becoming part of our everyday lives. The domestication of animals has not only led to new forms of symbiosis between humans and other species—we love our pets, ride our horses and drink milk from our cows—

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. To copy otherwise, or republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee.

HT'05, September 6-9, 2005, Salzburg, Austria.

Copyright 2005 ACM 1-59593-168-6/05/0009...\$5.00.

it has also been accompanied by planned breeding of animals and the selection of certain traits that are useful or pleasing to humans. Modern day, domesticated dogs or pigs are very different from their pre-domesticated ancestors.

Computers are not, of course, newly domesticated wild animals, but neither were the first computers intended to be used by individuals in their homes. Early computers were seen as mathematical tools, business tools and military tools. In 1974, Ted Nelson's insistence that ordinary people need computers [29] was radical, though only a few years later the first commercial personal computers were being sold. Today, of course, computers are used as toys and as tools, for writing love letters and high school essays, for storing family photos and for writing and reading hypertext. Children in industrialised nations only rarely learn how to ride a horse or milk a cow, but will begin to learn to use a computer before they can read and write.

Domestication is the process of taming and repurposing something to be useful in ways it was not developed or evolved for. "The Street finds its own uses for things" as William Gibson wrote [13], and those uses are often not the ones developers imagined. The telephone, for instance, was intended to allow voice communication between two points only: the factory and the factory owner's home. The inventors of the aerosol can did not plan the birth of graffiti and street art. The internet was developed by the military and by academic institutions with no intention of creating the social communication network of today.

Hypertext, on the other hand, was always intended to be a tool for individuals. Nelson insisted on the importance of *personal* computers ("You must understand computers NOW!" [29]) and Vannevar Bush's original vision was of an *intimate* technology, to be used by individuals at home:

Consider a future device for individual use, which is a sort of mechanized private file and library. It needs a name, and to coin one at random, "memex" will do. A memex is a device in which an individual stores all his books, records, and communications, and which is mechanized so that it may be consulted with exceeding speed and flexibility. It is an enlarged intimate supplement to his memory. [9]

In the late sixties, Andries van Dam built the first working hypertext system in collaboration with Nelson and with inspiration from Doug Engelbart. Van Dam and his collaborators built their system to run on mainframe computers in a research institution rather than in homes, and other early hypertext systems followed this pattern. Developers had little choice in this: there were no personal computers yet. The use of mainframe computers in the early development of hypertext parallels the modern industrialised domestication of animals on cattle ranches and battery farmed hens. Hypertext on mainframe computers was a domesticated technology in the sense that it was tame, farmed and cultivated in a carefully controlled environment.

Although hypertext systems in the seventies and eighties were developed on mainframes rather than in homes, research often discussed individuals' uses of hypertext systems [37]. Despite the frequent references to large-scale hypertext systems such as the oft-cited aeroplane manual [38], the actual focus on the varying and subjective ways in which individuals actually use hypertext is evident throughout the literature.

Though the first personal computers became available in the late seventies, the first home hypertext systems weren't available till the late eighties. Peter Brown's GUIDE [8] was followed by HyperCard, a hypertext authoring system that was packaged with Macintosh computers. Soon afterwards, Eastgate's Storyspace became available, first for the Macintosh and later for the PC. Tinderbox, released from Eastgate in 2001, is probably the tool that most closely follows in the footsteps of these systems, which were very much created in the spirit of Vannevar Bush and the desire for an intimate extension to memory. These hypertext authoring systems allow an individual to organise his or her personal notes and create his or her own self-contained hypertext which can be shared with others by copying it onto a diskette or CD or by emailing it as a single file. While Tinderbox and HyperCard were primarily intended as organisational tools, Storyspace was explicitly developed as a tool for fiction authors.

In the nineties, the advent of the web and the rapid spread of personal computers and internet connections in ordinary homes radically changed the ecosystem hypertext existed in. Hypertext, lovingly bred in captivity, was unleashed into the World Wide Web. Suddenly, anyone could publish a website and link and be linked at will.

The result? Hypertext went feral.

2. SPOTTING FERAL HYPERTEXTS

So what *is* feral hypertext? Feral hypertext has a tendency to move beneath the radar. It is easy to not identify feral hypertext as hypertext at all. Feral hypertexts are not as clearly delimited and disciplined as domesticated hypertexts are, and our language and culture aren't designed to speak about things that lack boundaries.

What feral hypertexts have in common is that they have reverted to the wild, in one respect or another. They are no longer tame. They won't do what we expect and they refuse to stay put within boundaries we've defined. They don't follow standards—indeed, they appear to revel in the non-standard, while perhaps building new kinds of standard that we don't yet understand.

In a 2003 paper, Jim Rosenberg describes feral structure in hypertext authoring [34], where nodes are placed loosely on the desktop, out of context. This is a typical way of using a hypertext authoring system that allows a spatial view of the nodes, such as Tinderbox. My use of feral is similar to Rosenberg's in that I am talking about unplanned structures, but it is the massive possibility for collaboration and emergence in the network that creates truly feral, uncontrollable hypertext.

The clearest examples of feral hypertexts are the large collaborative projects that generate patterns and meanings without any clear authors or editors controlling the linking. While the semantic web and other standards-oriented projects clearly follow the domesticated paradigm, attempting to retain control of hypertextual structures, these feral projects accept messiness, errors and ignorance, and devise ways of making sense from vast numbers of varying contributions. The online version of the Encyclopædia Britannica is an example of a domesticated and carefully controlled hypertext, while the Wikipedia is an example of a feral hypertext. An online library catalogue, with its careful categorisation, is domesticated, while Google's interpretations of links or Flickr, Del.icio.us and CiteULike's collaborative freeform tagging are feral. This doesn't mean there are no structures or rules. Quite the contrary: these systems work because they have simple but flexible ground conditions that establish environments that make emergent organisation instantly visible. These hypertexts are both "intimate extensions to memory" and complex representations of a collective narrative.

While the *folksonomy* or *ethnoclassification* of Flickr and its kin has been discussed online [25, 35], there is as yet little awareness of how this affects literary hypertext. Are there equivalents to the emergent structures of collaborative, feral hypertexts in literature?

Spotting feral hypertext, and literary feral hypertext in particular, requires a willingness to accept structures that are neither predefined nor clearly boundaried. In discussing weblogs, one natural habitat for feral hypertexts, Steve Himmer wrote that weblogs' "absence of a discrete, 'completed' product makes the weblog as a form resistant to the commoditization either of itself, or of any one particular interpretation." [18] Codework writer and net performance artist Mez Breeze has a similar explanation for the lack of visibility of her process-based writing:

[I]t seems evident that various web/net/code artists are more likely to be accepted into an academic reification circuit/traditional art market if they produce works that reflect a traditional craft-worker positioning. This "craft" orientation (producing skilled/practically inclined output, rather than placing adequate emphasis on the conceptual or ephemeral aspects of a networked, or code/software-based, medium) is embraced and replicated by artists who create finished, marketable, tangible objects; read: work that slots nicely into a capitalistic framework where products/objects are commodified and hence equated with substantiated worth. [7]

It is simply far easier to see products and objects (say, a complete hypertext story on a diskette) than it is to spot feral hypertexts that have escaped from our grasp.

This paper is an exploration of hypertext's transition from domesticated to feral, with a particular emphasis on literary hypertext. Before we can understand how hypertext went feral, we should examine ways in which hypertext and other literature have been kept disciplined.

3. KEEPING HYPERTEXT UNDER CONTROL

It seems reasonable to assume that Nelson intended his definition of hypertext to be productive rather than restrictive. His first definitions are fairly concrete, listing possible kinds of hypertext and hypermedia and advocating for their realisation. His later definitions, written after many kinds of hypertext in fact existed, are far more open. In the 1987 edition of *Computer Lib/Dream Machine* [30], for instance, Nelson explicitly calls interactive fiction in the tradition of *Adventure* and *Zork* hypertexts, "since hypertext simply means nonsequential writing." (page 30)

During its early development, hypertext required boundaries in order to become a concept that we could talk about and implement. As Andries van Dam said in his keynote at the first ACM Hypertext conference, the founders of hypertext sought ways of disciplining the genre:

Another thing we should thank Ted for is that he did not just say, "branch, link, make arbitrary associations." He tried very early to impose some discipline on linking. [2]

The desire for discipline is evident in calls for systematically typed links [36], standardised metadata and a well-coordinated semantic web. Yet as sensible as these systems are, the web remains messy and unplanned. There are too many creators out there, and few bother to add metadata or follow standards. Even those who know the importance of metadata may fail to categorise their data in fear of failing to apply the taxonomy correctly. In addition, metadata is easily abused. Spammers have made metadata close to meaningless by adding irrelevant tags to their porn and gambling sites. Search engines have attempted to reclaim control by assigning value to more implicit structures instead, as with Google's interpretation of links, but these structures are also abused [41]. It is not easy to discipline hypertext.

One of the ways literary theorists have analysed our wish to impose discipline on texts is though the idea of authorship. Nelson's concept of hypertext deals with works that are *authored* by humans.

Hyper-media are branching or performing presentations which respond to user actions, systems of prearranged words and pictures (for example) which may be explored freely or queried in stylized ways. They will not be "programmed," but rather designed, written, drawn and edited, by authors, artists, designers and editors. [Nelson 1970, qtd in 43]

Interestingly, Nelson's idea of authored hypermedia was concurrent with an increasing trend in literary theory towards discounting the author, instead emphasising the potentially infinite associative connections between texts. Julia Kristeva introduced the concept of intertextuality in 1967 [22], just two years after Nelson coined the term hypertext. Intertextuality refers to the idea that no text can exist alone, but is part of a network of explicit and implicit allusions to and citations of other texts. The similarities between hypertext's crafted and programmed links and the ubiquitous and implicit links between all texts posited by the concept of intertextuality are obvious, and were often noted in the early stages of literary hypertext theory. Landow's statement that "hypertext creates an almost embarrassingly literal embodiment of a principle that had seemed particularly abstract and difficult when read from the vantage point of print" (page 53) [23] has been cited again and again, both in appreciation and to point out that (as Landow also expresses elsewhere) the relationship between hypertext and critical theory is not that simple.

What I would like to emphasise here is that the concept of intertextuality and much other late twentieth century critical theory expresses an idea of texts as *unruly* and fundamentally

beyond discipline. Much hypertext research, on the other hand, attempts to find ways to discipline and tame our thoughts, at the same time as its admits that our mind works associatively and that there are multiple ways of viewing connections in texts.

Around the same time as Roland Barthes declared the death of the author [4], Michel Foucault argued that our idea of authorship is the only thing that keeps fiction from enveloping our world:

How can one reduce the great peril, the great danger with which fiction threatens our world? The answer is: One can reduce it with the author. The author allows a limitation of the cancerous and dangerous proliferation of significations within a world where one is thrifty not only with one's resources and riches, but also with one's discourses and their significations. The author is the principle of thrift in the proliferation of meaning. [12]

Foucault argued that fiction is a potentially cancerous growth, and that without limitations on its proliferation, it would spread without limit. We might well argue that this has in fact happened in today's world. Hoaxes, spams and scams abound on the internet, and often the reason that people get so upset by these cases is precisely that the author function has begun to slip. We can no longer trust that the person who claims to be the author of a text is its true author, as is evident from the Kaycee Nicole hoax and its ilk [40].

Typed links, standards for metadata and a semantic web are ways of limiting the "cancerous and dangerous proliferation" of hypertext. They are ways of trying to keep this creature we have created domesticated, tame and controllable.

4. WHO'S IN CHARGE?

There are three ways of creating metadata about information [25]. The metadata can be assigned by librarians or other skilled professionals who have been carefully trained in a taxonomy such as the Dewey decimal system or the Dublin Core. This is the way the ACM's digital library works (although authors also suggest keywords for their own papers), and it is the way subject directories are set up, whether by professionalised institutions or groups of volunteers, as in the Open Directory (dmoz.org).

Alternatively, metadata can be provided by the author or the creator of the work. This doesn't always work, because authors are not skilled taxonomists, because they don't prioritise metadata and because some authors will abuse the system. However, this is the predominant system on the web. On a general level, metatags can be assigned to individual webpages using specific HTML tags, and XML provides a flexible yet potentially standardised framework for far more detailed metadata about any document.

Finally, metadata can be provided by the users. This is the most chaotic system, because users will often have even less knowledge about the overall structure and nature of the information than an author, and because no single perspective will be shared by all users. A group you would classify as freedom fighters may well be classified as terrorists by somebody in a different situation than yours

These three levels of organisation are evident in literature as well as in the information we see on the web. Publishers and critics are the equivalents of the librarians, and in their different ways, these are the professionals who define a canon. Eastgate and other publishers of hypertext fiction like *Drunken Boat, New River* and *The Iowa Review Web* declare the works they publish as being

worthy of attention, as well as often giving them more specific metadata by describing works in catalogues, editorials and marketing. Awards given by organisations like AltX, trAce and the Electronic Literature Organization are also part of this system, as are the readings arranged at ACM Hypertext conferences and elsewhere and close readings of hypertext fiction published by various authors. These are all examples of how institutions, organisations and professional critics and publishers define what hypertext fiction is.

Authors of hypertext fiction can add explicit metadata to their works, but as with traditional fiction authors, this is not particularly common. Authors are more likely to provide implicit metadata about their work by submitting it to certain journals, presenting it in certain venues and so on.

User-provided metadata for hypertext exists a little, in comments on works in various readers' weblogs and on discussion lists. However, it has not yet reached the point where new usage and structure emerges. Traditional media objects such as books, movies and music have such systems. Allconsuming (http://43.allconsuming.net) is one example.

All of these ways of classifying objects assume that there is an object to classify. For literary works, it is the author function, in Foucault's sense, that defines the extent of the work. This is also the case with the hypertext fiction that has become part of the canon. Hypercard and Storyspace works fit easily into this paradigm, limited not only by the author but by their format: the work includes whatever is on this disk. In rare cases extra material was provided. Uncle Buddy's Funhouse [26] includes cassettes and a printout of the proofs of a manuscript for a short story by Uncle Buddy. When authors control their own publication, as they can on the web, there is no need for a work to be finished before it is published. For instance, *The Unknown*, a notoriously proliferate hypertext, was in the process of being written for two or three years [14]. Yet even though this work grew and changed during that period, it could always be limited by the URL: anything on the domain http://unknownhypertext.com is a part of the work.

5. FOLKSONOMIES AND EMERGENT CONNECTIONS

Let me give you an example of a feral hypertext. Flickr is a photosharing website where individuals upload their photos and give them titles, descriptions and tags. Flickr supports a social network where you can choose to define other users as friends, family or contacts. Photos taken by your friends, family or contacts are displayed prominently for you, and you can mark each of your photos to be visible to anybody or only to friends or family.

The most interesting—and the most feral—aspect of Flickr is the tagging. Instead of providing a set list of possible keywords, Flickr allows users to type in any tag they like. Each photo can have as many tags as desired. If Jane clicks on one of the tags on a photo her friend Nina took, Jane is shown all Nina's photos that have that particular tag. From that page, she can continue by clicking the link titled "see all public photos tagged with [the tag]". This gives some very interesting results. Since there are no predefined rules for how to tag your photos, nobody has complete control of the ways in which photos are presented, yet vast pools of photographs of specific places or events are gathered and made accessible. Different tags produce very different kinds of

description, narrative or argument. Figure 1 shows a screenshot of the latest photos tagged with the word "Bush" on March 27, 2005.

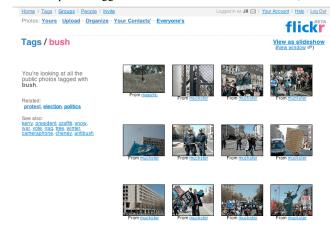


Figure 1: The most recent photos uploaded to Flickr and tagged with "Bush". To the left you see related tags. (http://flickr.com/photos/tags/bush)

As you can see, the page presents photos that refer to different senses of the word "Bush". Some photos are of plants, while others are of protests against George W. Bush's policies. No attempt is made to disambiguate the tag, which may, perhaps, make the metadata more useful to humans than to computers. To the left a list of related tags is shown: "protest, election, politics, kerry, president, graffiti, snow, war, vote, iraq, tree, winter, cameraphone, cheney, antibush". These give a clear context to the most common uses of the tag "bush" and give the user ample opportunity to follow the associative links made by other individuals using the system. These links are not paths cleared by the professional trail-blazers Vannevar Bush dreamed of [9], they are more like sheep paths in the mountains, paths that have formed over time as many animals and people just happened to use them. Once formed, it is easier to use such a path than to blaze a new trail.

Del.icio.us is a social bookmark system that uses tags similarly to Flickr, and indeed was probably the inspiration for Flickr's use of tags. In Del.icio.us, users bookmark websites they're interested in and assign tags to them. Once tagged, you can see how many other people have bookmarked that page, and clicking through, you can see the tags they've chosen to describe the page. Often, their use of tags may inspire you to add a more commonly used tag to your description of the page, or you may follow the other tags used and find new, related sites that also interest you. CiteULike does exactly the same thing for academic papers, and provides a fascinating way of surfing colleagues' reading interests and thereby finding research on topics related to the ones you're working on. These systems allow you to find people who are interested in the same things as you but whom you didn't already know about.

The example in Figure 1 shows how the system in this case has enabled a collective argument to be made about relationships between a political person and various world events. Obviously the photos shown and the related tags depend on the pool of people sharing photos, and the connections might be different with a different group of people. Flickr's connections can express more poetic descriptions as well, as seen in Figure 2, which shows recent photos tagged with the word "train".

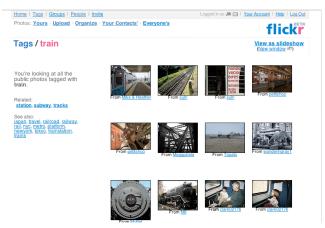


Figure 2: Photos tagged with the word "train". Flickr.com, March 27, 2005.

Here the photos give the impression of a narrative. Perhaps it is because of the motif: trains mean journeys, and journeys are the basis of the quintessential narrative plot. Another reason why the images seem narrative may be the layout. We are used to reading a series of photographs as we read a comic book or a storyboard for a movie. If this can be seen as a form of narrative, it is a narrative that lacks both author and work.

Let's move to more clearly literary hypertext now, and take a look at the history of domesticated literary hypertext and at the ways in which literary hypertext today is beginning to go feral.

6. HOW LITERARY HYPERTEXT BEGAN TO GO FERAL

In the fifty years since Vannevar Bush described the memex [9], the idea of hypertext has been slowly and carefully cultivated. Two decades after the initial idea was sown, Ted Nelson named it and described some of the forms it might take: discrete hypertext with nodes connected by links, stretchtext, hypergrams, and more [43].

These seeds of hypertext have been cultivated in many ways. In terms of literary work, we might retrospectively say that interactive fictions such as *Zork* and *Adventure* were a form of hypertext literature [28]. However, it was in 1987 that the first literary work explicitly thought of as hypertextual was presented. That was the year of the first ACM Hypertext conference, where Jay Bolter and Michael Joyce presented Storyspace (co-developed with John Smith) to the general public [6]. Their paper at that conference included a footnote that offered interested persons a copy of Joyce's hypertext fiction, *afternoon*, *a story*, created in Storyspace. By 1990, both *afternoon* [21] and Storyspace were being distributed by Eastgate Systems, and in the years since a number of hypertext fictions written in Storyspace and other platforms have been published and distributed by Eastgate.

These early hypertext fictions were sold as stand-alone applications on diskettes and later on CD-ROMs. The distribution mirrored that of traditional literary publishing. The format of the work itself was unfamiliar to readers, who for example found their expectations of closure to be challenged [11, 42]. Yet many characteristics remained close to conventional literature, such as the mode of distribution, the relationship between author and work and the expectation of sustained reading of a self-contained work.

While it was in all cases easy to separate the literary work from other documents and applications running on the reader's computer, there were variations in how the works were presented. Some versions of Patchwork Girl [20] distributes each node across the reader's screen, while afternoon contained in a single window where each node "vields" to the next. The reader's interaction with these disk-based hyperfictions is limited to clicking on words and answering simple yes or no questions. Despite suggestions that this kind of hypertext fiction makes the reader a co-author of the work [23], authors may actually have more control over the work than in conventional fiction, where readers are free to read the end of the story first if they wish [1, 33]. In afternoon the only indication readers have that they have read the whole story is that nodes begin reappearing. It may be possible to trace a line from the earliest hypertext fictions, like afternoon, which gave little control of the story to the reader, and towards later works where the reader was given access to all the nodes, for instance through a map view or other overall representation of the work, as in M. D. Coverley's Califia [10, 31].

Authors were quick to start using the web for hypertext fiction. The early web was well suited to the node and link based hypertext that had been developed in early hypertext fiction, although systems like Storyspace allowed conditional links, map views and other finesses that could make early HTML seem a simplistic form of hypertext. In her 1995 survey of hypertext fiction on the web, Carolyn Guyer noted of one of her favourite pieces that "In truth, this fiction begs for a fuller hypertextual form. I'd like to see it on disk." [15] However, it soon became evident that the collaborative and open aspects of the web would allow hypertext fiction could evolve in ways that the diskette could not support.

Collaborative fiction was popular [27] as readers discovered how easy it was to *write* in the web instead of just reading. Many works used a tree-structure (or a sieve [5]), rather like the Choose-your-own-adventure book series. At each plot point, readers could choose between two plot options. Tree-fictions, like Gavin Inglis's *Same Day Test* [19], can be tightly structured. Since the reader selects one plot option at each step, each version of the story is itself completely linear and runs easily from a clear beginning to a clear end, allowing the author a great deal of control.

Collaborative fictions frequently used the same tree structure, but allowed readers to add their own storylines. Different structures allowed varying degrees of control to the initiators or lead authors of such works. Some such fictions allowed anybody to write anything. This kind of collaborative fiction also existed prior to the web, particularly in MUDs and MOOs like LambdaMOO or Hypertext Hotel and on listservs and discussion groups [45].

This is where hypertext began to go feral. When readers can alter the text, the links and the structure of the text, the link begins to run wild. And yet even these hypertexts tended to remain reasonably predictable, perhaps largely because of the simplicity of the HTML on which they depended. The only possible structure for these works, at the time, was that of node-and-link hypertext.

Other collaborative fictions were more structured and had a clear format within which contributions were allowed. An example is *The Company Therapist* [32], which told stories about individual characters and their relationships with each other by letting

readers browse characters' diaries, transcripts of their sessions with their therapist and other material. Readers were invited to write a character of their own, but had to sign up and participate fully and within clear limits in order to do so.

In many ways the collaborative fictions of the early web days were a return to the collaborative hypertext systems that were developed in the seventies and eighties. Students using Intermedia at Brown University didn't write fiction, but they developed collaborative hypertexts that were not under the control of a single author. Although it is possible for an author or a group of authors and editors to retain control (or repeatedly regain control) of a collaborative hypertext, as with *The Company Therapist*, these hypertexts are examples of how hypertext can escape from the orderly control of authors and/or editors and grow wild.

While early collaborative hypertexts expanded prolifically, they remained self-contained and didn't spill out over their own borders. A website can grow almost infinitely and never become more visible from outside of itself. As long as all links in a work are internal to the work itself it remains self-contained and identifiable as a single entity or as a work.

In the late nineties, web hypertext fiction began opening up and moving torwards the feral. Authors like Deena Larsen and Noah Wardrip-Fruin started creating hypertext fictions that deliberately broke the boundaries between work and surroundings. In The Impermanence Agent [44] Wardrip-Fruin and his collaborators wrote a work that runs in the background as you browse the web, incorporating text and images from websites the reader encounters in the work itself. While this introduces an aspect of randomness in the work, the framework is still predetermined. Larsen used a less random technique that in some ways resulted in a greater abdication of power. In her work Disappearing Rain [24] she included links out to other websites, fully aware that she could not guarantee that the websites she linked to would remain as they were when she linked to them. The reverse technique was used in The Unknown, where the authors encouraged inbound links, hoping that readers would arrive at a page of the labyrinthine hypertext while performing a pragmatic web search rather than looking for a literary experience [14, 33].

While these works don't completely leave the domesticated paradigm where the work is bounded and kept under strict control, they do begin to challenge the idea of a tame, structured hypertext. They begin to work outside the borders.

7. WEBLOGS AND DISTRIBUTED NARRATIVE

While literary hypertext presumably might go feral in many different ways, weblogs provide the clearest example of truly feral, literary hypertexts today. There are as yet no Flickrs for fiction, though there are fictional and literary projects within Flickr (see, for instance, the tag "flicktion").

Most individual weblogs aren't feral at all. Quite the contrary, in fact, they're politely obedient and simply use the default templates, linking to other blogs or sites only if the blogging software makes linking very easy. Sometimes, however, systems or clusterings of weblogs escape and become something more than just a single website with occasional links and commentary.

Justin Hall's blog, closed since January 2005, is an example of a feral hypertext. Actually, I shouldn't refer to this hypertext as Justin Hall's blog, because the hypertext I want to talk about spreads across many more sites than links.net, the website where

Hall has narrated his life since 1993 [16, 46]. Hall's narration of his life online began in January 1994, with a simple homepage, and extended into a detailed hypertextual version of his life told in traditional node and link HTML. When weblogging software began accessible, Hall started using it, and posted almost daily fragments in this decade-long autobiographical project until early 2005. At this point, Hall posted a video where he discussed the problems of publicly narrating ones life at the same time as relating to the people in one's life, and ceased his personal blogging.

Hall has been involved in many different projects, many of which have had an online component. Over the years, he has had relationships with women who themselves kept weblogs, he has written for various wellknown online journals, he has kept a research weblog for his postgraduate studies and participated in other online fora. To look at the online *ouevre* of Hall, then, it would be necessary to look beyond links.net and take note of the many connections between what he has written on his own sites and on other sites. In addition, one could look at what his friends have written about him and about their relationships with him as part of the story of his life during these years.

After ending his personal blogging, Hall has continued to write online. He posts photos to Flickr, many of them public, and he is a frequent contributor to the Wikipedia. Presumably he also participates in many online fora I'm unaware of. In his personal user page at the Wikipedia, he describes a current online writing goal as attempting to distribute his personal narrative across the web:

Between 1994 and 2005, I wrote a few thousand web pages about my life. When Professor Peggy Weil proposed we compose an interactive media autobiographical piece for our Interactive Writing class, I initially thought to disperse that effort: to write on the web itself, not on a web page. Disappear from any central location; instead, inhabit the web as a sort of spirit. My personality, commentary, reflections, stories, notions popping up on other web sites. [17]

As an blogger and author of an auto-biographical website, Hall didn't define the extent of his narrative, although he was one of the most self-aware, thoughtful and enduring of online diarists. It was up to me as the reader to decide what is part of this hypertext. I could choose to limit it by authorship, as Foucault suggests, in which case I would choose to look at everything Hall has written. Or I could choose to limit it by the main character in the narrative, Justin Hall, in which case I would look at his girlfriends' blogs and other writings about him as well.

In thinking thus, though, I am in a sense already trapped by an idea that boundaries are necessary. If I cannot control the hypertext that extends between weblogs by finding a clear object that I can point to and say look, that's the work, that's the literature, as I can point to Joyce's *afternoon*, then I try to find other ways of controlling the hypertext by limiting it by author or character. How might we think about feral hypertests without resorting to these feeble attempts to control them?

I think one way of thinking about hypertext non-structures such as those that ebb and flow in weblog clusters is that they are distributed narratives. Distributed narratives disregard the commodification of most literature, "opening up the formal and physical aspects of the work and spreading themselves across time, space and the network" [39]. Distributed narratives and feral

hypertexts are permeating our daily lives in a way that may be just as influential as traditional works, although they are harder to see.

8. CONCLUSION

There is no need to worry that hypertext is escaping from our domestic confines. If we lose the old ways of disciplining links and hypertext – authorship, metadata, clear structures – there is all the more need to research the ways in which feral hypertext can work. Hypertext will remain an intimate extension of our memory, but the focus will be on *our* in the collective rather than on the individual. Feral hypertext draws from our collective ideas and associations to create emergent structures and meanings. That is valuable, if only we can see it and appreciate it.

And remember, while van Dam praised Ted Nelson for reminding us that we must discipline our links, he also said of Nelson that:

One of the most important things he taught me was that .this is a new medium and you really can't be constrained to thinking about it in the old ways. Don't copy old bad habits; think about new organizations, new ways of doing things, and take advantage of this new medium. [2]

Perhaps our greatest challenge, though, lies in recognising literary forms that do not adhere to our conventional forms of discipline: authors, works and commodities. I suspect that these forms of literature will be the most interesting in years to come.

9. REFERENCES

- Aarseth, E. <u>Cybertext: Perspectives on Ergodic</u>
 <u>Literature</u>. Johns Hopkins UP, Baltimore and London,
 1997.
- Andries van, D. "Hypertext '87: Keynote Address."
 Communications of the ACM, 31 (7), 887-895.
- Aune, M. "The Computer in Everyday Life: Patterns of Domestication of a New Technology." in Lie, M. and Sørensen, K. eds. <u>Making Technology Our Own?</u> Scandinavian University Press, Oslo, 1996.
- 4. Barthes, R. "The Death of the Author." in Barthes, R. ed. <u>Image, Music, Text.</u>, Hill and Wang, New York, 1977, 142-148.
- 5. Bernstein, M., "Patterns of Hypertext." in Hypertext 98, (Pittsburgh, 1998), ACM Press, 106-112.
- 6. Bolter, J.D. and Joyce, M., "Hypertext and Creative Writing." in Proceeding of the ACM conference on Hypertext, (Chapel Hill, North Carolina, United States, 1987), ACM Press, 41-50.
- 7. Breeze, M. "Inappropriate Format][ing][Craft-Orientation vs. Networked Content[s]." <u>JoDI: Journal of</u> Digital Information, 3 (3). http://jodi.ecs.soton.ac.uk
- 8. Brown, P.J., "Turning Ideas into Products: The Guide System." in <u>Conference on Hypertext and Hypermedia</u>, (Chapel Hill, NC, 1987), ACM Press, 33-40.
- 9. Bush, V. "As We May Think." <u>Atlantic Monthly</u>, 176 (1). 85-110.
- Coverley, M.D. <u>Califia</u>. Eastgate, Watertown, MA, 2000
- Douglas, J.Y. <u>The End of Books or Books without End?</u> <u>Reading Interactive Narratives</u>. University of Michigan Press, Ann Arbor, 2000.
- 12. Foucault, M. "What is an Author?" in Lodge, D. ed. Modern Criticism and Theory: A Reader, Longman, London, 1988, 196-210.

- Gibson, W. "Academy Leader." in Benedikt, M. ed. <u>Cyberspace: First Steps, MIT Press, Cambridge, MA,</u> 1991, 27-30.
- 14. Gillespie, W., Rettberg, S., Stratton, D. and Marquardt, F. The Unknown. 1998. http://unknownhypertext.com
- 15. Guyer, C. "Web Hyperfiction Reading List." <u>Feed Magazine</u>.
 <www.feedmag.com/95.09guyer/95.09guyer_sample1.h tml (dead link: use archive.org) >
- 16. Hall, J. Links.net Links.net. 1994-2005. http://links.net
- 17. Hall, J. User: JustinHall User: JustinHall. Wikipedia: The Free Encyclopedia, 2005. http://en.wikipedia.org/wiki/User:JustinHall >
- 18. Himmer, S. "The Labyrinth Unbound: Weblogs as Literature." in Gurak, L., Antonijevic, S., Johnson, L., Ratliff, C. and Reyman, J. eds. <u>Into the Blogosphere</u>, University of Minnesota, 2004. http://blog.lib.umn.edu/blogosphere/
- 19. Inglis, G. Same Day Test. n.d. http://www.bareword.com/sdt/
- Jackson, S. <u>Patchwork Girl</u>. Eastgate Systems, Cambridge, MA, 1995.
- 21. Joyce, M. <u>afternoon, a story</u>. Eastgate Systems, Watertown, MA, 1990.
- Kristeva, J. "Bakhtine, le mot, le dialogue et le roman."
 Critique (239). 438-465.
- 23. Landow, G.P. <u>Hypertext: The Convergence of Contemporary Critical Theory and Technology</u>. Johns Hopkins University Press, Baltimore, 1992.
- 24. Larsen, D. Disappearing Rain. 1997. http://www.deenalarsen.net/rain/
- 25. Mathes, A. Folksonomies Cooperative Classification and Communication Through Shared Metadata. 2004. http://www.adammathes.com/academic/computer-mediated-communication/folksonomies.html>
- McDaid, J. <u>Uncle Buddy's Phantom Funhouse</u>. Eastgate Systems, Watertown, MA, 1992.
- 27. Mills, S. Selected Internet Resources for Writers. 1995. http://www.writersforthefuture.com/1995>
- Montfort, N. <u>Twisty Little Passages: An Approach to Interactive Fiction</u>. MIT Press, Cambridge, MA, 2003.
- 29. Nelson, T. <u>Computer Lib / Dream Machines</u>. Self-published, 1974.
- Nelson, T. <u>Computer Lib/Dream Machine</u>. Microsoft Press, 1987.
- 31. Odin, J.K. Unraveling the Tapestry of *Califia*: A Journey to Remember History Unraveling the Tapestry of *Califia*: A Journey to Remember History. EBR: Electronic Book Review, 2001.

 shrfp://www.altx.com/ebr/reviews/rev12/r12odi.htm
- 32. Pipsqueak Productions The Company Therapist. 1996-1999. http://www.thetherapist.com>
- 33. Rettberg, S. <u>Destination Unknown: Experiments in the Network Novel</u>. Ph.D. thesis. Department of English and Comparative Literature, University of Cincinnati. Cincinnati, 2003. http://loki.stockton.edu/~rettbers/PDFS/rettbergetd.pdf
- 34. Rosenberg, J., "Hypertext in the Open Air: A Systemless Approach to Spatial Hypertext." in <u>Third</u>

- Workshop on Spatial Hypertext, (Nottingham, 2003). http://www.csdl.tamu.edu/shipman/SpatialHypertext/SH3/rosenberg.pdf
- 35. Smith, J.H. and Egenfelt-Nielsen, S. The 6 Myths of Computer Gaming The 6 Myths of Computer Gaming. Game Research, 2002. http://www.game-research.com/art myths of gaming.asp >
- Trigg, R. <u>A Network-Based Approach to Text Handling</u> for the Online Scientific Community. PhD. Dept of Computer Science, Maryland. College Park, MD, 1983.
- 37. Trigg, R. and Irish, P., "Hypertext Habitats: Experiences of Writers in NoteCard." in <u>ACM Hypertext</u>, (Chapel Hill, NC, 1987), ACM Press.
- van Dam, A. "Hypertext '87: Keynote Address."
 <u>Communications of the ACM</u>, 31 (7). 887-895.
- 39. Walker, J. "Distributed Narrative: Telling Stories Across Networks." in Consalvo, M., Hunsinger, J. and Baym, N. eds. <u>The 2005 Association of Internet</u> <u>Researchers Annual</u>, Peter Lang, New York, Forthcoming.
- 40. Walker, J. Fiction and Interaction: How Clicking a

 Mouse Can Make You Part of a Fictional World. Dr.
 art. thesis. Dept of Humanistic Informatics, University

- of Bergen. 2003. http://www.ub.uib.no/elpub/2003/d/517001
- 41. Walker, J., "Links and Power: the Political Economy of Linking on the Web." in <u>Hypertext 2002</u>, (Baltimore, 2002), ACM Press, 78-79.
- Walker, J., "Piecing Together and Tearing Apart: Finding the Story in 'afternoon'." in <u>Hypertext '99</u>, (Darmstadt, Germany, 1999), ACM Press, 111–117.
- 43. Wardrip-Fruin, N., "What Hypertext Is." in <u>Proceedings</u>
 of the fifteenth ACM conference on Hypertext &
 hypermedia, (Santa Cruz, CA, USA, 2004), ACM Press,
 126-127.
- 44. Wardrip-Fruin, N., Chapman, a.c., Moss, B. and Whitehurst, D. The Impermanence Agent. 2000. http://impermanenceagent.com
- 45. Wittig, R. <u>Invisible Rendevous: Connection and Collaboration in the New Landscape of Electronic</u>
 Writing, Wesleyan UP, Middletown, CT, 1994.
- Wittig, R. Justin Hall and the Birth of the 'Blogs Justin Hall and the Birth of the 'Blogs. Electronic Book Review, 2003.
 - http://www.electronicbookreview.com/v3/servlet/ebr?c ommand=view essay&essay id=wittigele>