"Old" Media into New: Theorizing Narrative Structures

"Hypertext: The End of Books"
> --(Title of 1992 essay by Robert Cloover, literature professor, quoted in Rhodes, 2000)

"Something happens to people…who come from a film or television background when initially exposed to the idea of interactive multimedia…a light bulb goes on….you can hand over your program material to your audience and they can construct their own experiences."
> --(Max Whitby, interactive media producer, quoted in Lunenfeld, 2002, p. 147)

"Connected to the narrative engine through rich feedback loops and intuitively understandable interfaces, the audience becomes an active partner in the shaping and presentation of the story."
> --(Glorianna Davenport, Director of the MIT Interactive Cinema Group, quoted in Lunenfeld, 2002, p. 146)

The hype about hypermedia's potential to disrupt, transform and overturn the prevailing 2,500 year old tradition in dramatic and fictional narrative is frequently prominent in utopian and deterministic discourse on new media in popular culture. This essay will consider theoretical writings by three critical thinkers who show the relationship between narrative structures in older and new media forms to be ongoing, complex, and contested.

Manovich (2001) uses semiotic theory to analyze what he calls the fundamental forms of new media, the database and the algorithm, in comparison to cinema. Landow (1997) looks at the relationship between hypertext and literary theory, and argues that the former manifests and actualizes many of the ideas of the latter. Murray (1999) writes on the potential for new media narrative from the perspective of a literary scholar, building on insights from, among much else, the 19th century novel and epic poetry narrative forms.

Perhaps the most important issue among many in considering how narrative structures are affected between "old" and new media is what is popularly called "interactivity," or what Murray (1999) more meaningfully terms "agency." The impact on and meaning for narrative of increased user control over the order and direction of events,

characters, settings, and other elements is an important theme for the three theorists considered here. Among the questions raised are how the pleasures, ideological uses, and other functions of older narratives will change with greater user agency, and indeed whether the new form can properly be called a narrative at all.

<div align="center">Manovich: Algorithm and Database</div>

Manovich (2000) argues that the novel in the 19th century and especially cinema in the 20th century "privileged narrative as the key form of cultural expression of the modern age" (p. 1). In the computer age, new media has ended the predominance of narrative by replacing it with the database (defined as a structured collection of data). While some "old" media objects such as catalogs, encyclopedias, and books of photographs may eschew narrative structure, most "old" media objects such as print fiction, newspapers, television shows, and cinema, normally tell stories. In contrast, many new media objects don't employ narrative; instead, they are assemblages of items which lack any thematic or formal development which would organize their elements into a sequence. Manovich (2001) argues that

> after the death of God (Nietzsche), the end of Grand Narrative (Lyotard), and the arrival of the Web (Tim Berners-Lee), the world appears to us as an endless and unstructured collection of images, text, and other data records (p. 219).

The database is therefore the symbolic form of the computer age, a new way to structure our experience of ourselves and of the world, as we have tended to structure them in terms of machines, electronics, and genetics in previous ages.

However, like the "old media" storytelling forms (and under the pervasive influence, Manovich argues, of the predominant 20th century medium, cinema) many new

media objects facilitate a kind of narrative experience by their users. A narrative shell is laid over the basic database structure of the new media object, frequently in the form of an algorithm, a sequence of simple operations a computer can execute to perform a given task. In computer function, the algorithm plays process "yang" to the database's content "yin"; they are both necessary to the working computer (Manovich, 2001).

Video games present an example of the use of algorithm in new media. In pursuing the goal associated with winning a game (such as accumulating the most points or reaching a highest level first), the player usually follows an simple implied instruction set, an algorithm, such as "kill as many opponents and gather as many trophies as possible before advancing to the next level." The pursuit of this goal through the algorithmic set of instructions is what gives the player the experience of a narrative (Manovich, 2001).

In the computer age, our culture projects the ontology of the computer onto the world by integrating into it the algorithm as well as the database; everything in the world is seen as a form of one of these two complimentary software objects (Manovich, 2001). Every process and behavior is thought of as an algorithm, while every object is seen as a database; together they form a symbiotic relationship. Manovich sees the two as mutually exclusive cultural metaphors that compete in making meaning. Databases portray the world as an unordered group of items, while algorithms portray "a cause-and-effect trajectory of...events" (Manovich, p. 225).

We can even extend this ontology to traditional narratives if we view them metaphorically as algorithms. While readers and viewers of novels, movies, dramatic TV series, or sitcoms don't follow a set of instructions in order to execute a task, they do

reconstruct the algorithm used by the author in creating the plot, the characters, and the fictional world of the work (Manovich, 2001).

Most new media objects are structured as databases, whether or not that is apparent to the user by what she sees on the monitor. In contrast to most art objects, where the interface and the work are the same (e.g. music, movies, dance), in new media objects the content and the interface are distinct. If only one interface through the new media object is created, the experience of the user will be as of a traditional art object. If multiple interfaces are possible, the user experiences a narrative as a result of

> traversing a database, following links between its records as established by the
> database's creator....[a] hypernarrative can then be understood as the sum of
> multiple trajectories through a database...[and] traditional linear narrative can be
> seen as a particular case of hypernarrative (Manovich, 2001, p. 227).

Manovich applies the terms of structural analysis to this dichotomy. He contends that, in thinking about narrative in hypermedia, the underlying database logic can be usefully compared to the paradigmatic axis of a sign series. Likewise, the metaphoric algorithm by which a user constructs a narrative path through the new media object's database can be compared to the syntagmatic axis.

In narrative syntagms which are traditionally the object of structural analysis, such as language systems (Saussure), folk tales (Propp), film sequences (Metz), or food and fashion (Barthes), the syntagmatic axis is the site of explicit expression while the paradigmatic axis is implied and imaginary, consisting of the fields of substitution or association of the syntagmatic elements. In hypermedia, this relationship is reversed; the paradigmatic axis is made explicit in the form of the new media object's database, while

the syntagmatic axis, the narrative path through the database created by the user's choices, becomes imaginary and implicit (Manovich, 2001). This creates the most salient feature of new media narrative: the freedom of the user to chart her own path.

But does this path constitute a true narrative? Manovich cites narratologist Mieke Bal's defining criteria: "a narrative should contain both an actor and a narrator; it should also contain three distinct levels consisting of the text, the story, and the fabula; and its contents should be a series of connected events caused or experienced by actors" (p. 227). Obviously, Manovich argues, not all trips through a database are narratives; the term, especially when paired with "interactive," becomes an overused, all-inclusive and inaccurate name for these strange new media objects. To truly be a narrative, the trip through the database records must fulfill the semantic and logical criteria of Bal's definition (Manovich, 2001).

Manovich holds that the language of new media is made up of "cinematic ways of seeing the world, of structuring time, of narrating a story, and of linking one experience to the next" (2001, p. 78-9). Unlike some less thoughtful assessments of new media, he cannot be charged with claiming that new media is utterly new. However, like the structuralists whose methods he uses in his analysis, his work largely assumes that "readers merely decipher the author's intention or underlying design, without inflecting the text with their own personal associations or appropriating it for their own pleasures" (Kinder, 2002, p. 123). Manovich in many ways is a neo-formalist, concentrating on formal features of new media without addressing variations in individual consumption recognized in post-structuralist terms like "negotiated readings," "reading against the grain," "textual poaching," or "queering" (Kinder, 2002, p. 123). In contrast, Landow's

pioneering work from a decade before Manovich had already applied post-structuralist

theory to new media.

Landow: Aristotle Revisited

In contrast to Manovich's structuralist analysis of new media and narrative,

Landow (1997) argues that hypertext actualizes many of the ideas in literary theory,

clarifying through demonstration the Gallic abstractions many readers find difficult. In

the introduction to Hypertext 2.0, he cites a passage on the ideal text from early in

Barthes' S/Z:

> [Its] networks are many and interact, without any one of them being able to surpass the rest; this text is a galaxy of signifiers, not a structure of signifieds; it has no beginning; it is reversible; we gain access to it by several entrances, none of which can be authoritatively declared to be the main one...the systems of meaning can take over this absolutely plural text, but their number is never closed, based as it is on the plurality of language (p. 5-6).

Landow argues that hypertext thus challenges linearity and singularity of meaning

in discourse. In the case of narrative, hypertext calls into question the rules of plot and

story established by Aristotle in the Poetics that are still current today:

> Now a whole is that which has beginning, middle, and end....a well constructed plot, therefore, cannot either begin or end at any point one likes, but must have a probable or necessary sequence of events....to be beautiful, a living creature, and every whole made up of parts, must not only present a certain order in the arrangement of its parts, but also be of a certain definite magnitude (cited in Landow, 1997, p. 181).

This sense of the necessity of a definite order in narrative, along with the

obligation of the portrayal of cause and effect, has prevailed in storytelling for more than

two thousand years. White (1987) claims that one function of causal linearity in narrative

is to convey the moral content of the text; the story must come to closure and present

outcomes in order to convey the text's moral message. White (1987) writes that this is a

matter of ideology: "Narrativity...is intimately related to the impulse to moralize reality, that is, to identify it with the social system that is the source of any morality we can imagine (p. 14)."

The power of this impulse is shown in our imposing attributes of fictional narrative, such as "coherence, integrity, fullness, and closure" on real events (White, 1987, p. 20). In fact, White argues that causal narrative is relevant not only to literary forms, but may reflect "the very nature of culture…and humanity itself" (1987, cited in Landow, 1997, p. 183). He sees narrative "not as one of many codes, but a metacode…on the basis of which transcultural messages about the nature of a shared reality can be transmitted" (p. 1). By challenging what may be a basic cultural metacode, hypermedia's attack on narrative may be perceived as threatening or liberating, depending on one's orientation. Lyotard claims in The Postmodern Condition that "lamenting the 'loss of meaning' in postmodernity boils down to mourning the fact that knowledge is no longer principally narrative" (cited in Landow, 1997, p. 184).

However, hypermedia need not be so catastrophic for literary narrative. Landow (1997), in discussing works by authors who design hyperlinked experiences through fiction lexias for their readers, claims that removing Aristotle's "probable or necessary sequence of events"

> does not eliminate all linearity. It is just that now linearity "becomes a quality of the individual reader's experience within a single text and... her experience following a reading path, even if that path curves back upon itself or heads in strange directions" (p. 184).

Thus, it is quite possible in hypermedia to fulfill Bal's criterion that a narrative should have "a series of connected events experienced by actors," even if the order of the events is chosen and experienced (at least in part) by an actor "outside" the narrative, the

user. This user thus becomes a kind of *bricoleur* who constructs meaning from a chosen path through linked hypermedia elements, which in syntagm approaches Barthes' ideal of a writerly text, resonating with meanings specific to the user.

According to Landow, then, hypertext in itself does not destroy narrative. Somewhat like the bard in oral literary traditions, the hypertext reader draws on existing elements to fabricate their own structures. This is a comparison Murray (1999) develops further in <u>Hamlet on the Holodeck.</u>

<u>Murray: The Cyberbard and the Multiform Plot</u>

Janet Murray (1999) develops the concepts of syntagmatic choice and paradigmatic substitution in user-centered hypermedia narrative by invoking artificial intelligence (AI) to help shape the user's path through the paradigmatic field. The roots of this futuristic approach to storytelling lie in prehistoric literature.

Murray argues that the work of classicist Alfred Lord in the 1950s showed that oral composition, such as that which produced Homer's <u>Iliad</u> and <u>Odyssey</u>, used devices that we now call repetition, redundancy, and cliché to help the singer, or bard, remember the long and complicated song-story. The performance was constructed using formulas within formulas, from the level of character euphemisms to the work as a whole; Lord called this approach a "substitution system." Each performance of the song-story was different, reflecting the taste of the audience and the dramatic choices of the bard. Lord comments on this variability of the sung text:

Unlike the oral poet, we are not accustomed to thinking in terms of fluidity [of text]. We find it difficult to grasp something that is multiform. It seems necessary

> for us to construct an ideal text or seek an original, and we remain dissatisfied
>
> with an ever-changing phenomenon...(in Murray, 1999, p. 194)

The multiform technique used by the oral poets can be described as a flexibility along the paradigmatic axis from one version to another of the narrative, while the syntagmatic axis, the order and type of the events of the story, remains fairly constant.

Murray (1999) compares Vladimir Propp's model of the morphology of the folk tales he studied to an algorithm, and proposes a similar morphological approach for the design of interactive narrative. She suggests that this could be achieved through the use of frames, a conceptual format of organizing qualitative information which was first conceived by artificial intelligence pioneer Marvin Minsky. Minsky imagined human memory as a group of frames, each of which has "slots" in it. The frame can be thought of as a generic type, while the slots would contain specific examples of the type or its attributes.

Applying Propp's structuralist "functions" and Minsky's frames to storytelling in hypermedia, Murray proposes a hypothetical cyber-experience in which the author/creator of the experience is able to specify

> all the elements of the abstract structure: the primitives of participation...; the
>
> segmentation of the story into themes or morphemes; [and] all the substitution
>
> elements (instances of character types, dangers, rewards, places, travel
>
> experience, etc.) (p. 204).

The user would then be free to create her own narrative experience out of the great range of choices created by the author.

Working within established literary and cinematic genres would limit the syntagmatic and paradigmatic options that the hypernarrative author must create and that the user could experience (Murray, 1999). For example, if the hypernarrative was in the detective story genre "frame," the location "slot" (or paradigmatic field) could be limited to New York, Los Angeles, or San Francisco; and the period "slot" might contain only 1924, 1938, and 1949. Similarly, the syntagmatic (event) axis, while offering some choice in order, might necessarily include meeting a client in one's office, a visit to a seedy bar, a murder, the appearance of a femme fatale, a double cross, etc. The choices along both axes could be made explicitly by the user; or they could be made by an AI function based on the user's previous choices, or randomly.

Murray finds that current new media narratives "overexploit the digressive possibilities of hypertext and the gamelike features of simulation," but that is to be expected from a medium in its infancy (p. 93). Also, she feels that the database nature of new media "encourages long-windedness and formlessness in storytellers," and leaves users "wondering which of several endpoints is *the* end and how they can know if they have seen everything there is to see" (p. 87). She is particularly critical of postmodern indulgence: "in trying to create texts that do not 'privilege' any one order of reading or interpretive framework, the postmodernists are privileging confusion itself" (p. 133).

Murray seems to be more modernist than post-, in that throughout the book she looks for means to transfer the pleasures of traditional narrative, Barthes' "readerly" texts, to new media forms. She does not show interest in post-structural texts which point to their own construction or to the ideological forces at work in their reading.

Murray is characteristically optimistic about our being able to discover interactive narrative's "delights and dangers…and in what ways they are continuous with older narrative traditions and in what ways they offer access to new beauty and new truths about ourselves and the world we move through" (p. 94).

She feels as strongly as Manovich that a random trip through a database does not necessarily constitute a narrative, and that "procedural authors" of interactive narratives must shape the user's universe of options as surely as any historical author shaped a linear work of fiction:

> Once we understand simulations as interpretations of the world, the hand behind the multiform plot will feel as firmly present as the hand of the traditional author….A George Eliot…or William Shakespeare of the future could create kaleidoscopic worlds of dazzling variety that will display the coherence and unified vision we associate with great fiction (Murray, 1999, pp. 275-6).

<u>Closing</u>

"I've yet to encounter anyone who reads hypertext fiction...no one, that is, who isn't also a hypertext author or a journalist reporting on the trend."
            --(Unnamed critic quoted in Rhodes, 2000)

"Now the basic premise [of interactive multimedia] is very exciting. The trouble is, it doesn't sustain. When you actually try to get in there and make things in an interactive way, the premise falls apart."
            --(Max Whitby, interactive media producer, quoted in Lunenfeld, 2002, p. 147)

The three theorists examined here analyze new media in terms of "old" media theories and examples. Their ideas show that narrative new media is both new in significant ways and part of a continuity with oral literature, the novel, and cinema.

But where are the aesthetically successful and popular manifestations of narrative hypermedia envisioned by Landow and Murray? The examples of hypertext narrative in <u>Hypertext 2.0</u> seem dated and quaint, like something from <u>That Nineties Show,</u> while the works Murray writes about in <u>Hamlet on the Holodeck</u>, as the title suggests, are largely speculative. The huge financial success of video games, the only commercially viable

current form of interactive narrative, often seems inversely proportional to the poverty of the games' content.

Perhaps the best hope for progress in interactive narrative is for ambitious video game authors to study for inspiration, imitation, and transformation examples of "old" media "that fully engage the aesthetic, cognitive, and ideological functions of narrative in the broadest sense of the term" (Kinder, 2002, p. 131).

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