

# Textual Constitution of Narrative in Digital Media

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## *Abstract*

Nachdem der Oberflächentext seit den Anfängen des Strukturalismus als ausschließliche Grundlage für Analysen gegolten hat, machen interaktive Erzählformen wie Hypertext und Computerspiel die Notwendigkeit veränderter Prämissen deutlich. Als Alternative wird hier ein räumliches Modell entworfen, das die Dimensionen Textkonstitution, Medienkombination und Rezeption innerhalb eines gemeinsamen Bezugsrahmens zusammenfasst. Innerhalb dieses Modells, das Ansätze von Stierle, Iser, Ryan und Herman verschränkt, können sowohl traditionelle als auch interaktive Erzählformen miteinander verglichen werden. Grundgedanke des Modells ist, dass sämtliche Formen des Erzählens eine faktuale oder fiktive narrative Welt zugrundelegen und aus deren tendenziell unbegrenzter Menge von Figuren und Geschehnissen Elemente auswählen und zu einer Geschichte zusammenfügen. Dieser medienübergreifende Prozess wird im Modell durch die zeitliche Dimension von Produktion und Rezeption sowie die Anzahl und Art der verwendeten Kommunikationskanäle ergänzt. Dies ermöglicht eine gleichzeitige Darstellung von medienspezifischen und medienunabhängigen Eigenschaften eines narrativen Textes.

Since the advent of structuralism and semiotics, scholars of literature, film critics and art historians alike have based their research exclusively on text. There is a consensus that text is a fixed structure of signs, readily available in the unchanging surface of a work of art. As such, texts are independent points of reference for scholars, because results of analyses based on texts can be easily compared and reproduced. This enables the humanities to deal with their objects in an almost empirical way. Many scholars – Italo Calvino, to name just one famous example – assumed that this was universally true, for all media, and for all times (Calvino 1984, p. 16).

Art forms that allow for a significant degree of user interaction call this exclusive concentration on text into question. When the recipient influences what happens in a story or how it is told, when there are multiple outcomes to the story and multiple ways to achieve each outcome, these stories cease to be fixed structures of signs. But it isn't only with branching narratives in digital media that the term "text" becomes problematic. Other forms of communication – improvisational theater or performance art, to name only two examples – exhibit very similar traits. Still, all these forms are habitually subjected to traditional methods of literary criticism or semiotics, which have been developed for the analysis of written narratives (especially the novel) or static images (like paintings or photographs). When we try to modify our understanding of text to include interactive forms of communication it becomes obvious that interactivity is not a property of the text – it is a special kind of reception.

Even with written narrative, reception is not a simple one-way process – the reader interacts with the text when reading it, e.g. by filling in missing information –, but the impact of this

kind of interaction has traditionally been deemed negligible. In the analysis of hypertexts and computer games, though, the recipient's pivotal role becomes obvious. Whereas the text of a novel exists independently of the reader, a narrative hypertext becomes a text only through interaction with the recipient. Unless someone interacts with it, a hypertext is just a source-code. So there are actually two dimensions of interactive reception at work in interactive media: recipients not only process narrative content, they are also involved in the very constitution of the text. And there is yet another area in which hypertexts and computer games are more complex, namely the way different media interact in narratives. While relatively simple and negligible with books (where we might find a mix of writing and illustrations, at best), the understanding of media combinations becomes crucial when dealing with forms of communication that use text, speech, music and different types of video in various configurations.

The methodical challenges in analyzing digital media force us to reconsider the relation of text, author and recipient, picking up on ideas that reader-response-theorists propagated more than twenty years ago. This reappraisal of seemingly outdated theories is not only necessary to fully acknowledge the narrative properties of computers games and hypertexts. Our understanding of traditional texts will benefit from it as well.

In computer games, the three crucial factors of textual constitution, media combination and narrative reception are more closely connected than in any other medium. Therefore, understanding how they interact in this medium would help analyze the synergies at work in other media. Unfortunately, all existing theories focus exclusively on one of these three factors, which makes it necessary to develop a framework in which existing approaches can be combined. In the following pages, I will outline a model for such a framework.

Let me first try to make the problem somewhat clearer. In a written text, the sentences are abstract and evocative, and every reader processes their information in a slightly different way (Iser 1984). There is always some leeway as to how we imagine characters, places, and so on. That is why literary scholars usually do not discuss their impressions or how they imagine something mentioned in a text, but refer to what the text explicitly says.

We quote lines, because, as Gerard Genette puts it, the text is the only reliable reference we have as scholars, the common ground which – opposed to our understanding – is not individually different (Genette 1994, p. 200). By substantiating our interpretation of a narrative with a quote, we approach scientific proof as best we can.

With a hypertext, this practice becomes difficult because there are text-passages which we, as the interactive reader, must actually combine, which means that even if the elements we choose from remain the same, the text has no fixed macro-structure. Every reader chooses from a number of possible configurations, thereby generating one of a (possibly fairly large) number of macro-structures or finalized surface texts. Computer games are yet more complex, especially when they take place in real-time simulated worlds. The player controls the movements and actions of his/her virtual representation, his/her Avatar, in the virtual world, and the "text" he/she perceives is the feedback generated by the interaction of input, simulation and the parameters of the virtual world. Each time the game is played, the story – which until then exists only virtually as a number of options – becomes concretized in a slightly

different way. Some scholars have therefore started evading the term “text” altogether in connection with computer games, conceiving of them as a kind of pure discourse (Aarseth 2004).

To abandon the notion of “text” in computer games altogether would mean, however, that we couldn’t justify using them as subjects for scholarly study, because without a text there could be no common subject and thus no objectivity. If we, on the other hand, do not believe that electronic media in general are inherently different from traditional media, the study of both can only benefit from an ability to compare them within a common model. Instead of just ignoring or highlighting their differences, as it is currently done, a model of textuality applicable to all forms of narrative would enable a real comparison between them. To arrive at such a model we must question our established notions of both traditional and electronic media, starting with our concept of textuality.

With literary texts, scholars usually differentiate layers of meaning. Literary theory knows many distinctions of those layers, starting with Aristotle’s classification of sub-types of rhetoric and continuing through the nineteenth century with authors like E.M. Forster (1990, p. 87). Most concepts still in use today are based on the latter’s distinction of story and plot.

Throughout the twentieth century, this distinction of what is being told from the way it is being told has been renamed, reformulated and rethought dozens of times. Only recently, Martinez and Scheffel accumulated and categorized no less than nineteen possible distinctions of textual layers, most of which are mere variations of Forster’s model (Martinez & Scheffel 2002, p. 26). I would like to introduce a lesser known example: In the 1970s, Karlheinz Stierle suggested a model of textual constitution that differed subtly, yet significantly from all others (Stierle 1975). At a time when French structuralists were trying to separate text and discourse, Stierle was more interested in the basics of textual constitution. His peers worked like archeologists: they started with the artifact, the surface text, and looked for other levels of meaning beneath it. Stierle took a different approach. He tried to imagine the process of a text’s creation: To him, first of all there has to be a continuum of occurrences or events – he uses the German word “Geschehen” –, which can be factual or fictional. These occurrences are not yet a story, which is his second level of textual constitution, nor is it the text of the story, his third level, which denotes the final text. Re-formulating a thought already found with Aristotle, he distinguishes between the story, which is always bounded – it has a beginning and an ending –, and the occurrences, which usually cannot be defined temporally or causally, but are more complex and less organized.

This is most easily illustrated not with fiction but with historiography: The story or, in this case, history of the “Great War”, World War One, usually starts with the assassination of Archduke Franz Ferdinand at Sarajevo and ends with the signing of the Treaty of Versailles. This is the story, which is bounded temporarily. Of course its author has to know not only what happened between June 28, 1914, and June 28, 1919, but about a far greater number of occurrences. There are causes for the war long before that period, and its effects on politics and society lasted for decades. But there is even more than these causes and effects, events that were not connected to the war but which happened at the same time, and they are also part of the totality of what Stierle calls the occurrence-level of a text. In our example, the text of the story would be a book on the war, telling the story of what happened during the war. A

treatise on the reasons for the war would tell a different story, one that might not start, but end with the death of Franz Ferdinand. Still, it would be based on the same occurrences.

Stierle's approach is only of limited use when dealing with written narrative, because in this case, to get back to Genette again, the surface text is the only element we can really scrutinize – everything else is an extrapolation. But as soon as we are dealing with branching stories sporting multiple pathways and outcomes, Stierle's category of occurrences becomes essential. In a novel, which would in Stierle's terms be the text of a story, there is – with notable exceptions like John Fowles's *The French Lieutenant's Woman* – only one story, and whatever alternative choices we feel the characters might have taken are only our informed guesses. In hypertexts and computer games, though, there are multiple, alternative stories. They exist side by side in a way that is best described by the proper use of the ubiquitous buzzword "virtual". Only one story is being realized at a time, but there are alternatives within the confines of the game, multiple virtual storylines amongst which the player consciously or unconsciously chooses.

For this reason, what Stierle calls the occurrence-level is crucial to understanding interactive storytelling. Without it, we are stuck with analyzing the way the story is told, ignoring that the narrative game allows for a variety of occurrences – and by extension, a variety of stories – to take place. Whereas a traditional author thinks about all possible chains of events that can occur in the world of his/her story and then decides for one, this choice is partially left to the player in narrative games. So the interesting aspect in computer games is the occurrence-level, or more specifically, the way author and recipient work together on this level in shaping story and text.

Let me illustrate this. As I already mentioned, the player of narrative computer games is involved in a different way than the recipient of a traditionally told story. If I am watching a James Bond movie, all I can do is flinch if he gets hit and tense up as he strikes back. If I play a James Bond computer game, I control his movements. This means that I am not only the one who controls his attacks – I may even be able to avoid a fight and find a more elegant solution to the problem at hand. As a consequence, I am more deeply involved in the action. My involvement in the story, however, is similar, if not identical, to that in the movie or novel. (Constantly being involved in the action can even be detrimental to my ability to think about reasons and motivations.) Therefore, the ability to take part in the action is an additional level of involvement, not supplanting, but augmenting the complex task of processing a narrative.

This line of reasoning leads to the similarities of all narrative forms. As recipients of a story, we are constantly receiving new information, which adds to or changes what we have learned before. In other words, we are storing and processing information, and before we start interpreting – the task culture studies usually deal with exclusively – we need to understand. We store information about events, places, objects and characters, only to constantly revise this data. This is necessary because narration is a piecemeal process, not unlike assembling a jigsaw puzzle. Right until the end of a narrative, we lack information, that is, we lack explanations. Usually, existing gaps do get filled, and we revise previous assumptions, and do so

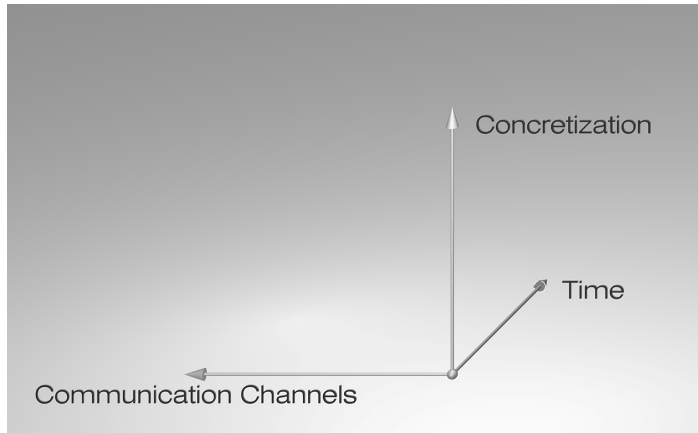
willingly and with some excitement whenever the author manages to come up with explanations we had not thought of (Ryan 2005, p. 3).

Narrative reception as an act of assembling and constantly re-evaluating information bears significant similarities in all media. It becomes more cognitively complex as a greater number of distinct stimuli are encountered at the same time, or in other words, as more communication channels are addressed. Still, our strategies for comprehension remain the same.

These processes were researched by reader-response-criticism and cognitive sciences in the past and have been an integral part of current narrative theories like those of Marie-Laure Ryan (2004) and David Herman (2002). In the light of those recent approaches, textual constitution and narrative understanding are regarded as acts of simulation taking place in the minds of author and recipient, with the text not as a direct means of communication, but as a blueprint or rule-set enabling the recipient to re-construct what the author had in mind. I will explain that notion further below.

At this point, I would like to sketch the model I introduced in the beginning, combining textual constitution, the process of reception, and the different media employed in a simple framework. Each of these form one parameter in the model, concretization, time and communication channels.

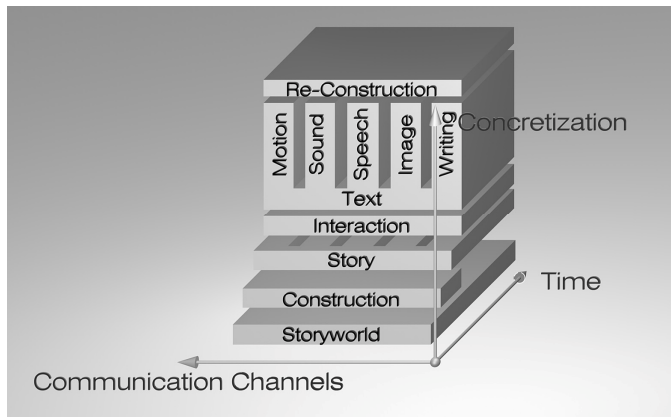
Textual constitution is reformulated as concretization in the model because our main interest lies in the steps necessary to formulate, communicate and understand narrative, which are steps that turn abstractions into concrete words and images. The second parameter must necessarily be time because concretization does not take place in an instant, but over a period of time – a story is conceived, a text is written, then read and understood. The proposed identification of communication as a series of simulations also makes this necessity obvious: actively processing information does take time. And as mentioned before, the means or channels of communication need to be included as a third parameter, because it makes a cognitive as well as an artistic difference whether only one or several senses are addressed. The indisputable difference between the text of a play and its performance is a straightforward, non-electronic example. Combining these three factors in a single model calls for a three-dimensional visualization. They can be conceived to form a space, in which concretization functions as the vertical axis, the communication channels form the horizontal axis, and time the dimension of depth.



*Fig. 1: Empty system of coordinates*

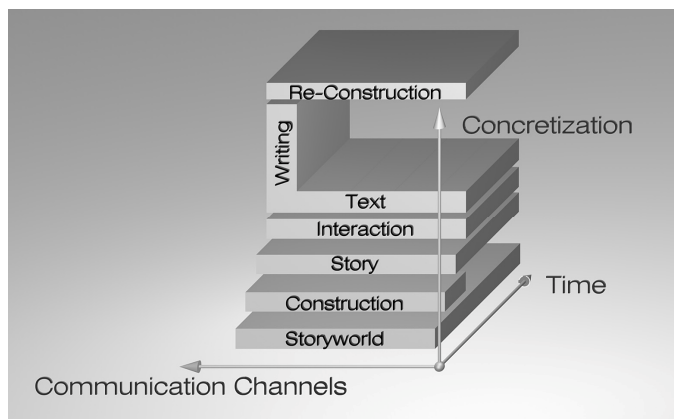
The space these three dimensions define has to be structured. As a starting point, I take Stierle's model of textual constitution, modified and complemented by concepts of Herman's and Ryan's. Their term "storyworld" is more accurate than Stierle's concept of "occurrences" because it reduces the totality of what might have happened in a real or fictitious world to those events taken into account by the storyteller. (Herman 2002, p. 20). More importantly, levels of "simulation" have to be added to account for the encoding and decoding processes of the story, both mental and virtual.

While appearing strange and technocratic at first, describing narrative as a series of simulations is not so far fetched. As Michel Riffaterre has observed, the rules of verisimilitude are as significant and unalterable to fiction as the laws of physics are to reality (Riffaterre 1993, p. 2). When an author has decided what world he/she is telling a story about, he/she is bound to this world's rules of probability in much the same way as a computer simulation cannot violate its virtual laws of physics. Dealing with reception as an act of simulation is an equally obvious solution: In narratives with fixed structures – especially books – the recipient imagines, that is, he/she mentally re-simulates the narrators' perception as it is put down in the text. In computer games, the player re-simulates not the perception – because it is he/she himself/herself who watches and hears –, but the actual events themselves, making it thus possible to change them. Claiming that these processes are identical would be an exaggeration, but they bear enough similarity to treat them as comparable elements inside a common model.



*Fig. 2: Model of interactive narrative*

I want to conclude this article by briefly demonstrating the model's possible application in two cases. In the most complex example, a computer game, the author envisions a storyworld and constructs a story within it, adhering to the rules of verisimilitude. This process of authorial simulation produces a number of virtual storylines, which in turn become realized in the second simulation, the act of playing the game. It is only through the interaction of playing that the game produces meaning. Only at this point, a surface text comparable to other media has been created and is being put out via diverse channels of communication. This output is then processed once more by the player, this time in his/her function as the recipient of a narrative, who reassesses the information received to construct a coherent story from it. This act of re-construction is the topmost level in the diagram.



*Fig. 3: Model of traditional narrative*

The authoring and reading of a book can be envisioned in the same model with only a few changes. The author conceives or researches a world, thinks about what happens within it, decides which events to tell, and puts the story into words. The differences are obvious: There is just one channel of communication: writing. The story is not virtual in the sense that it could be altered by the reading process, so there are no multiple story-lines. The most important difference is that the text is not the outcome, but the basis of the recipient's most important act of simulation – in other words, there is little interaction with the story apart from understanding and interpreting it, i.e. the act of re-construction.

The most interesting, yet the most challenging aspect of the model is the temporal dimension, especially the question which processes continue throughout the conception *and* reception of a story. While the authorial simulation obviously takes place before the player/recipient starts to interact, things are not as simple with, for example, the “storyworld”. The world in which events take place might have been envisioned by the author before writing a single word and may stay with a recipient long after finishing a story. This may be, once more, not particularly relevant in the domain of traditional storytelling, when an individual novelist produces a single, wholly concluded story. But there are many cases in which the endurance of a storyworld is an interesting question, especially with storytelling in long-lasting franchises. In the last decade, the lines between popular culture's most important areas have begun to blur. There are computer games based on books and movies, movies based on comic books, action figures or – in turn – computer games, novels based on each of these, and so forth. In such franchises, generations of storytellers write about the same storyworld for a constantly changing audience in a variety of media. This is just one of the many cases where the temporal dimension of a storyworld is of crucial importance for the understanding of a certain kind of narrative.



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