

Narratives Argument for Interaction Models: Or how our *unstable* double-agent found its way into the textual machine

Jaap Drooglever
Haarlemmerstraat 243
2312 DR Leiden
Netherlands
JAAPDR@DDS.NL

ABSTRACT

In this paper a semiotic reading of Andruud Kerne's CollageMachine will result in the conflation of the software agent with the narrative agent of post-structural semiotics. This reader orientated approach can lead to the exploration of new and exiting territory

Keywords

Software agents, narrative agents, CollageMachine, reader oriented agents.

1. POST-STRUCTURAL INTRODUCTION

'He did it without a sound,' said one. 'He cut their throats before they even knew it.' That was not strictly true, since the wife and children had seen me on the stairs, but, still, it is the thought that counts. 'E must be invisible,' a woman was whispering to her neighbour. 'Nobody saw 'im come or go.' I wanted to thank her for her flattering report but, of course, I was compelled to be invisible among them again. 'Tell me,' I asked an odd-looking fellow with a red scarf knotted around his head, 'was there much blood?' [1]

More secret than this *agent*, it cannot be. Spying over the ones gossiping about the murder he himself committed. He actually participates in the creation of stories about his own cruelties. Committed in this situation, committing in another he is the perfect *double-agent*, and we will need a real Holmes to solve this crime. In the following paper will be tried to elaborate the different meanings of *agent* in software- and narrative theory.

Not to solve anything, that I will leave to the good people. In due conformity with the rules of science, will tried to make the problem slightly more complex. This will be done by giving a go at defining a type of *agent* combining the best of both, resulting in the definition of an *agent* for the application of an interactive narrative, making use of the possibilities of the new and so-called unstable media. This new type of *agent* can be best described as an unstable *double-agent* of interactive narrative.

In doing this, there will be made use of the semiotic theory of narrative as is developed by Mieke Bal and others. In the broad field of semiotic and narrative theory, the choice is for her theories since they are very precise and they allow for an approach to the technical laws of narrative in a way that very effectively combines the power of textual structures and the role of the reader in the process of making meaning out of texts. In the view of Bal, the word '*text*' is not only confined to language as such but it can be applied to other cultural products like images, paintings and architecture as well. It is the reader who interprets these phenomena, making use of the text and her or his own judgements about it. Therefore every interpreting act is an interactive process. This reader orientated approach, which does not lose itself in absolute relativism of interpretation, offers a good framework for this paper and this conference as well.

One general movement of post-structural semiotics is the movement away from classification and representation towards a productive form of theory: not so much the epistemological status of the theory is what counts, but more the things you can do with it: how much knowledge can be gained, what constructions can be made or found. The quality of the theory is measured by its productivity. Meaning in this view is a product of the a process between reader and text, this means the end of a theory orientated towards representation and the beginning of a theory where difference is the key notion. As such there will also be made us of the theories of Charles Sander Peirce and Gilles Deleuze. In my view this theoretical basis of Bal, Peirce and Deleuze offers the greatest possibilities for a semiotic theory of interaction. And such a model is needed, for although DVD, Dolby Surround and such show a definite richness of media, they also too often show an equally poor understanding of the process of the production of meaning, which is prevalent in the common bombardment of signs the reader of these media is exposed to. A semiotic fact is that subtle signs can produce more meaning than an overload of information. Such an overload kills the

possibilities of interaction in an environment where much information is not fixed but real-time producible.

In the tradition of Bal the definition of a narrative is as follows:

“In a narrative an agent is narrating, by means of which activity this agent is giving his or her vision of an ordered sequence of actions leading to events.” [2]

This definition accounts for traditional narratives. These are fixed texts. As is mentioned above, every interpreting act is an interactive process. But still there are differences between a text which makes use of the possibilities that the new media offer and a traditional fixed text. What is added in an interactive narrative is an unstableness that makes it possible for the reader not only to have a role in the interpreting process, but also in the organisation of the text itself. In an interactive narrative, the reader can have a role in defining both the context and the route taken through the text. In terms of Peirce, the reader gains an extended role on the level of thirdness. This is the level where object shifts into meaning. For example a red traffic light: the level of secondness would involve ‘object = stopping’ while the level of thirdness would be the actual activity the reader undertakes as the result of perceiving the red light sign. And this could just as well be: speeding up a little to make it in time to the other side of the street. This active result is the most important movement of the level of thirdness. The extension of the role of the reader on the level of thirdness is a decision not only involving the meaning of the sign the reader has read but also a decision about which signs will be read in the future. The unstableness of the text deepens the role of the reader. Whereby a reader of a static text has a role at the level of secondness choosing iconic and indexical relations and at the level of thirdness choosing iconic, indexical and symbolic relations, the reader of an unstable text also has an involvement at the level of firstness in the selection process of representamens.

2. THIS DOUBLE-AGENT

To show how theoretical and practical consequences conflate, underneath an example will be worked out. The application discussed here is called *CollageMachine* and is made by Andruid Kerne, who is visiting professor in computer science/multimedia at Tufts university and received support for this project by the NYU Media Research Lab. In an article in *Leonardo*, *CollageMachine* is described as follows:

“*CollageMachine* builds interactive collages from the Web. First you choose a direction. Then *CollageMachine* will take you surfing out across the Internet as far as it can reach. It builds a collage from the most interesting media it can find for you. [...] *CollageMachine* deconstructs Web sites and re-presents them in collage form. The program crawls the Web, downloading sites. It breaks each page down into media elements – images and texts. Over time, these elements stream into a collage. Point, click, drag and drop to rearrange the media. How you organize the

elements shows *CollageMachine* what you’re interested in. You can teach it to bring media of interest to you. On the basis of interactions, the evolving model informs ongoing choices of selection and placement.” [3]

Another term used in this article is “An Interactive Agent of Web Recombination” besides the fact that the first description is a lot more smooth, this last one contains some interesting triggers for narrative theory. The definition of narrative is strongly interwoven with the notion of *agent*. Without this *agent* there is no story. It is defined as “a textual subject that produces the narrative”. [4] Another important feature is the ‘actions leading to events’. Both features point at a definite subjectivity that is built in to the narrative mode. The source of this subjectivity is the *agent* and it becomes manifest in the way this *agent* orders actions into events. This subjectivity is one of the most productive factors of the narrative mode, it can give shape to suspense, desire, curiosity and what not. This subjectivity is the factor that makes of breaks the story. The subjective telling of the tale is what makes it interesting for the reader to read and the subjective ordering is the added value of plain enumerating opposed to the narrative mode. Namely a sense of subjective direction, from actions to events. In this subjectivity lie the greatest possibilities but also the greatest threats to interaction. At the one hand, if a new media project wants to employ the narrative mode, it should not be afraid of the subjective *agent*, for it is constitutive to the narrative mode. On the other hand: a subjectivity located only on the side of the text, kills any possibility for interaction, leaving no room for interactive new media applications whatsoever. Semiotic theory made clear that this form of a subjectivity residing only at the side of the text, is fictional but the definitions of narrative, and the *agent* mentioned above are tied to a static text, not accounting for the differences between static and interactive texts. In this paradox the *CollageMachine* gives a brilliant solution.

In software the *agent* is, of course, a much debated operator. Using it as a keyword in Google alone results in nearly one and a half million of hits. This enormous amount of debate accounts for a set of definitions that is nearly as diverse. Examples of definitions are. “Agents are active and ever-present software components that perceive, appear to reason, act and communicate”. [5] Is one, another is: “An intelligent *agent* is a program that deploys own initiatives.”. [6] Both definitions overlap each other and could well be about the same thing, as is the case. Yet, that is not necessary. With the software *agent* we are dealing with an abstract phenomenon that is as vague as abstract thought can be. This abstract element ‘*agent*’ only acquires a specific meaning in an application of it. And I am happy to be able to announce, that the definition of the software *agent* in the application *CollageMachine*, given by Andruid Kerne fits quite well the *agent* in semiotic narrative theory. Andruid Kerne:

“By an agent, I mean a program that acts on behalf of the user. The agent makes decisions on its own volition. It learns about the user’s interests. It can run autonomously without direct

input from the user. It adapts in response to the user's ongoing expression. One type of agent is called a *recommender system*. These offer suggestions to the user about interesting content. Another type creates graphic representations based on a set of constraints. *CollageMachine* is both of these." [7]

The *agent* of the *CollageMachine* makes choices on the basis of a set of restraints, at the same time it *recommends*. How can that be done? Seen from the point of view of a static text, *recommendation* should take the form of the question, accept or reject this part of information into the text. This would mean a standard hypertext, where the reader can choose which link to click or a system where the reader gets the one question accept/reject after the other. In such a system, the subjectivity of the *agent* is lost and transferred to the reader, who is the one choosing actions. In such a model we are not dealing with a narrative: for hypertext gives choice but not direction, there is no ordering of *actions leading to events*, and there is a danger that the text stays only on the level of sole actions in their own context, producing no surplus of meaning. In the *CollageMachine recommendation* takes another shape, based on an interactive conception of a text. The choices made by the reader are taken in the process of a text continually changing. In an unstable environment presentation can also be interpreted as *an offer to choose* this or that direction for future selections in the process. Seen from the unstable point of view recommendation can take the shape of presenting for a reaction to the reader, in stead of a question accept/reject admission into the presentation. In this model the reader does not choose the actual presented content but has a role in the *direction* the *agent* is heading.

This model of the *agent* can be best described here with the term *double-agent*. This doubleness does not only account for the fact that this software *agent* can also be seen as an *agent* as is described in narrative theory but its doubleness is most inventive and powerful because the model of the *agent* in the *CollageMachine* implies a shared subjectivity. On the one hand, the *agent* keeps its crucial role in ordering actions into events, on the other hand the reader has a defined role in the process of choosing which actions will lead to what event. The *agent* is the leading subjectivity in the application, as is required for an authentic narrative but at the same time the subjectivity of the *agent* is influenced up to a large part, by the reader.

3. MOVING ON SUBTLY...

In *CollageMachine* this *double-agent* has taken one form but so many others can also take shape, maybe making a better use of the examples that the already existent tradition of thousands of years of narrative brings us. Above is mentioned how many of the existent new media products like DVD and Dolby Surround combine a richness of media with a poor understanding of the process of the production of meaning. This could be labelled as the *emotion-winpoints effect*. Such a misconception is prevalent in most digital games. In order to win you have to score points, which are visualised very obtrusive on the screen so the player is obliged to identify with them. The player of such a game does not

identify her or himself with a character, but with the meters and the emotion-winpoints semi-representing it.

Two misconceptions lie at the basis of this emotion-winpoints effect. The first it shares with the *CollageMachine* namely mistaking the *agent* for a mastermind. This can also be found in old-fashioned 19th century novels: one auctorial *agent* having a hand in everything that happens. Another example is the fight and win plot. But what modern masterpiece still works with such base conceptions? In the narrative theory of Mieke Bal, different types of *agents* are analysed. Two larger categories are the focaliser and the actor. They all play with the implications of subjectivity. Subjective vision, underdog positions, local differences or different relations an *agent* has with other elements in the narrative. One narrative, in fact, can have many different *agents*, all having their own subjectivity making up the whole of the narrative together. The aim is not to mastermind the total but to play a constitutive subjective role in the interactions between all the different *agents* that make up the subtlety of the text.

The second misconception involved in the emotion-winpoints effect has its basis in the attempt to mirror the reader and her or his intentions in the characters of the game. In a semiotic conception this is the wrong thing to do. It is what above is aimed at by stating that we have to move away from representation since the sharing of subjectivity in the *double-agent* must not result in an attempt to replicate the reader and her or his intentions but in a lively interaction between different subjective responses. When a reader indicates that she or he likes a certain situation, must the *agent* then respond accordingly? It could well be better, to let the *agent* make use of this piece of information in the further proceedings of the story. This can be done in many ways, and certainly not only in the form of an exact copy of the readers response in the *agents* subjectivity. Theoretically this is not even possible. What is possible, and what is much more interesting as well is an ongoing semiosis between the subjectivities residing at the digital end and the subjectivities residing at the living end of our interactive meaning making process.

In order to overcome the deficiencies and to make use of the chances a semiotic approach to new media, we'll have to let our imagination explode into *all* the 32 million colours that lie at hand. We don't have to search in the rich narrative tradition for long, to come to the conclusion that a good narrative actually has the power to generate strong emotions in the reader. Whether it be a good children's book, a piece of literature or a good film. For isn't it so that only the subtlety of Hannibal Lecter can conjure up the physically felt abjection that so many readers of *Silence of the Lambs* or *Hannibal* felt while sitting appalled in their movie theatre chairs? And now we're talking about cutting up bodies again, our *double-agent* offers opportunities not only to text or images but has an inspiration in the whole body and its faculties. What about tactile media, heartbeat response, response to music, sudden movements and what not? Whether a lie detector is really 100% safe or not, deploying it for an interactive narrative, not caring one damn about truth, could deliver a beautifully intense experience.

4. REFERENCES

- [1] Peter Ackroyd: "*Dan Lemo & The Limehouse Golem*". Vintage: 1998 (1994) pp. 192
- [2] Frans-Willem Korsten: "*The Wisdom Brokers, Narrative's Interaction with Arguments in Cultural Critical Texts.*" Amsterdam: ASCA, 1998. pp. 13
- [3] Andruid Kerne: "CollageMachine, An Interactive Agent of Web Recombination." In: *Leonardo* Vol. 33 No. 5 pp. 347-350 (2000)
- [4] Frans-Willem Korsten: "*The Wisdom Brokers, Narrative's Interaction with Arguments in Cultural Critical Texts.*" Amsterdam: ASCA, 1998. pp. 13
- [5] Gary A. Berg: "Human Computer Interaction (HCI) in Educational Environments: Implications of Understanding Computers as Media". In: *Journal of Educational Multimedia and Hypermedia* (2000) 9(4). pp 349-370
- [6] http://www.cs.vu.nl/vakgroepen/cs/term_projects/agents.html -own translation
- [7] Andruid Kerne: "CollageMachine, An Interactive Agent of Web Recombination." In: *Leonardo* Vol. 33 No. 5 pp. 347-350 (2000)
- * Mieke Bal: "*Narratology, Introduction to the Theory of Narrative.*" 2nd edition. Toronto, Buffalo, London: University of Toronto Press, 1997
- * Andruid Kerne: *CollageMachine* (artwork): <http://mrl.nyu.edu/ecology/collageMachine>.