

Interactive Narratives: A Form of Fiction?

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First Published in Convergence Magazine 1997

In his article 'Inter – Between: Actus – Done' in Convergence, 2, no 2 (Autumn 1996) Luke Hockley contends that interactivity in its current forms merely creates an 'illusion of control' for the user. He argues that this trivialisation results from the power structures which control the media attempting to maintain their hegemony through safely limiting the forms of interactivity. True interactivity, he states, is dialectical and such two-way communication is radically challenging to all forms of mediated communication. His examples, however, are limited to the crudest user interjections into dramatic plotting or choice of web pages. Perhaps if we examined artists' experiments with interactivity and the nature of narrative, a fuller understanding of the potentials of the medium could lead us to different conclusions?

In its brief existence as part of digital media, interactive narrative has continuously been transformed and reinvented both in its form and through users' increasingly sophisticated understanding of interface conventions. In this its development resembles the early days of cinema. As we move from the equivalents of 'tableaux vivant' to the appearance of the first D.W. Griffith or Sergei Eisenstein, as it were, the need for authorial understanding of the medium becomes the more pressing. Even defining its quintessential differences from other forms of narrative is not an easy task. The critical problems are further compounded by a tendency to lump all genres of interactive narrative under the same general heading.

Defining its properties

There is no clear juncture between linear and non-linear forms of narrative. While it is often claimed as fact, it is simply untrue that linearity dominates traditional narrative forms. Many narratives break the linearity of time or viewpoint. Where would Hollywood be without the 'backstory' or the postmodern novel without its sudden shifts of voice, time and genre? One must distinguish narrative form from the specificity of its medium. Linearity and non-linearity are both familiar fictional forms regardless of media. Non- or multi-linearity is not by itself

the defining criteria of interactive forms.

Any definition of narrative must surely revolve around a shared imaginative process of construction. Whether this process is linear or non-linear, it remains an active participation on the part of the viewer or reader. How then does interactive narrative differ from preceding forms? Quite simply the nature of the viewer's or reader's interaction is permanently altered. But it is precisely this interactivity which appears to contradict what is generally understood as essential narrative structure. It implies that the reader/spectator be transformed, taking a true authorial role as shaper of events, weaver of stories, a possessor of agency. As Malcolm Le Grice argues with regard to cinema:

Interactivity replaces the concept of the passive viewer by the active participant. ... An interactive cinema needs to offer a fundamental range of choices to the user ... This cannot be confined to a few alternative linear routes, endings or character view-points in an otherwise linear narrative structure. 2

For artists struggling to achieve this transfer of control of narrative flow to the reader, the task often seems akin to squaring the circle. Without direct authorial control the narrative risks fragmentation into a matrix of small, seemingly arbitrary story pieces or disappears altogether in a maelstrom of chaotic events. Creating strategies which maintain a measure of narrative coherence has therefore become a major focus for practitioners. The construction of effective models implies a precise understanding of those structures. Clarifying the use and misuse of these forms and the genres they now inhabit is compromised by a lack of achieved examples and adequate authoring tools.

It is not surprising that interactivity in multimedia tends to involve trivial 'point and click' actions on the part of the user. This elevation of interface over content and meaning has correctly been identified by Grahame Weinbren as a product of software dominating narrative form:

The structure that appears to have become established is based on the viewer's choosing what he or she wants to see next and in most computer programs this is determined by where on the screen the viewer has clicked or which key has been depressed. The underlying program is organised in a tree structure of image segments with branches at selection points. The main reason for the adoption of this model in my view, is that someone who has

*invested substantial time in learning a program that takes a specific approach to interactivity, may begin to believe that it is the only, the right, or the best approach.*³

It is my contention that so-called 'interactive' media have the potential to liberate writers and artists from the illusion of authorial control in much the same way that photography broke the naturalist illusion in art, exposing it not as an inevitable form, but as another set of conventions. It is perhaps more inertia in artistic practice and commission which is ensuring that, although interactive narratives will soon become common place (through broadcast on cable, satellite, network or CD-ROM), such forms as exist often remain unoriginal extensions of spectator models such as video or cinema. They can only become truly interactive when authors attempt to transcend the established syntax of earlier forms and the platitudes of multimedia and invent a coherent artistic language for interaction.

Closure

An even greater problem is that of closure: one of the springs of narrative must surely be a simple desire to know 'what happens next', but in literature and cinema this is motivated by a close identification with the characters in the plot. In the Victorian novel character was destiny, in the Modernist canon character slips into multiple responses and a sense of unknowable complexity. Closure is less important, but a necessary catharsis. Without such curves of emotional involvement and release, surely the narrative ceases to engage? Stripped of such possibilities, does the narrative have a future?

Structure and meaning

To understand the failures of most current attempts to create interactive fictions, it is perhaps first necessary to define the grammar of traditional narrative forms. In his essay 'Dissimulations'⁴ Andy Cameron wisely quotes Barthes in support of his claim that traditional fiction cannot sustain the conversion into interactivity. And indeed, on re-examining structuralist analysis it becomes obvious that most interactive fictions in hypertext form tend to be a collection of what Barthes terms 'cardinal functions' or narrative hinge points, without the necessary 'indices' (referring to character and atmosphere) and 'catalysers' which add depth and flow to the narrative between cardinal points:

Cardinal functions are both consecutive and consequential ... a

*catalyser ... accelerates, delays, gives fresh impetus to the discourse ... the catalyser ceaselessly revives the semantic tension of the discourse, says ceaselessly there has been, there is going to be, meaning ... it maintains the contact between the narrator and addressee. A nucleus cannot be deleted without altering the story, but neither can a catalyst without altering the discourse.*⁵

This schematic dominance of the structure at the expense of content is vividly critiqued by Gareth Rees:

*Writers [of hypertext fiction] have all come up against the exponential problem, the combinatory explosion of the number of endings as the number of choice points goes up. With ten binary decision points, there are a thousand endings, with twenty, over a million. ... If every English-speaking person wrote a single section, together they could not complete all the branches on a tree with 28 decision points (a story in Chinese would get one decision point further) ...*⁶

And the absurd reductionism of such an approach is tellingly satirised by Rees in an imaginary interactive Hamlet:

1. [the battlements of Elsinore Castle]

HAMLET: To be or not to be, that is the question

If Hamlet takes up arms against a sea of troubles, go to 3; if he

shuffles off this mortal coil go to 2.

In spite of this, the tree is a prevalent form. Even modifying such a structure to reconverge the possible outcomes into a more manageable shape merely increases the mechanical and contrived nature of the narrative.

Alternative structures

In 'Dissimulations', Andrew Cameron also argues that most hyperfictions are (for the above reasons) inevitably a failure. But his discussion is ambiguous about future strategies for creating interactivity. He seems to be suggesting the model of the computer game as a way forward, ignoring other forms of interactive narrative:

It is here that we find the apparent disjuncture between the nature of interactivity and that of narrative. The moment the reader intervenes to change the story ... is the moment when the story changes from being an account of events which have already occurred to the experience of events which are taking place in the present. Story time becomes real time, an account becomes an experience, the spectator or reader becomes a participant or player and the narrative begins to look like a game.⁷

If the symmetrical rigidity of the game seems rather too trite a form for narrative in new media, perhaps there already exist other models which could offer the choices of interpretation and viewpoint which play such a strong artistic role in the novel? A structure where the user is freed both from the slavery of linearity and the reductivism of branching plot choices? In the written work of Robert Coover, we find a different approach: the sudden move from stream to stream of parallel lives or consciousnesses.

In his short story *The Babysitter*⁸ interwoven scenes are retold in ever more fantastic salaciousness, as though a heavy breather has control of a joystick and keeps pressing the 'more bizarre' button. This method has transferred seamlessly into his later hyperfictions. His 'electron shell' structure of quantum leaps between parallel orbits offers a possible structural alternative to the common branching hyperfiction or the spatial mapping of narrative.

Grahame Weinbren also proposes an alternative model, a two-way transaction, which he partially achieved in his own interactive cinema piece *Sonata* (1992):

The ideal is a responsive representation machine, responsive in its capacity to change according to how the viewer responds to it. With such a machine, a new language of cinematic communication will be possible and a different type of narrative can unfold.⁹

In Weinbren's *Sonata*¹⁰ the viewer can only control aspects of the narration – moving from the murderer of Tolstoy's *Kreutzer Sonata* telling his story in the railway carriage to the events themselves, which can in turn be overlaid with the mouth of Tolstoy's wife berating the author, references to Freud's wolfman case, Judith and Holfernes etc. In one sense *Sonata* is linear, with time's arrow pointing forward, but it never reads the same way twice.

In Jon Dovey's piece on *The Toolbox* CD-ROM, '*The Desktop Theatre of Amnesia*',¹¹ these techniques of parallelism were tested. The emotional transformations of an unhappy love affair and its visually equivalent symbolic analogues are mapped in front of a matrix of QuickTime mini-movies. A simple click reveals the underlying talking heads, each one narrating a separate epiphany. Like multiple personalities locked inside one mind, but still aware of the others' presence, they reinforce poetic resonance by proximity and association. This approach has been employed and extended by practitioners such as Malcolm Le Grice¹² and Bill Seaman¹³ as a way of neatly side-stepping the strait-jacket of articulated narrative, allowing the user to set the selection criteria of matching components: thereby creating a form of associative narrative flow. As in a card game, turning up a particular image forces the computer to turn up a matching narrative fragment. Here we begin to approach Weinbren's responsive 'representation machine'.

While spatial analogues of narrative remain one of the dominant forms in many game-like quest stories on CD-ROM, such forms are merely a convention. In virtual reality (VR) they are derived from the natural need for a participatory spatial environment. In multimedia all the imagery is pre-created. Uniquely in VR, only the model is generated. Users create their own narrative journey on each engagement. Although the spatial metaphor is a prevalent form in many interactive narratives, as Cameron points out this is 'more than just the change from a simple line to a more complex diagram or space, it involves moving from one kind of representation to another'.¹⁴

The role of the artist is challenged in the construction of such immersive narrative environments. The action of the artist/author begins to resemble the designer of a model and, although the artist may describe its properties in great detail, s/he is no longer author of the events set in motion by the user.

In its multiuser form interactive narrative is found in MUDs and MOOs: networked interactions, events with no director but with many players who are also the 'audience', in situations open at both ends, engineered by the artist for shared development. But, as a short exploration of such sites on the Web makes only too clear, much of this type of interactive storymaking has been so involved with simply exploring its own matrix of delivery, that most of the concerns of mainstream art practice have taken a secondary role.

This participatory aspect of audience/user as performer is also evident

in most VR sessions. Brenda Laurel has already explored this in her '*Place holder*'¹⁵ experiments at Canada's Banff Centre for the Arts in the early 1990s, in which local native Indian myths were incorporated into a multiuser 'performance'.

Participants could create their own stories within the broad boundaries set by the artist. Laurel's work fused improvised theatre with the cutting edge of VR simulation, combining sensor feedback for arms and torso as well as hands and head. The participants could alter their voices electronically to match the mythic characters whose identity they assumed, and could swim or fly through the recorded video landscape mapped onto a three-dimensional computer-generated model. In its experimental form the result may have relied solely on the improvisation skills of trained actors, but it could potentially allow any user to convincingly construct their own personas. Her extension of drama into VR marked an important step in the development of interactive narrative forms.

With *The Legible City* (1989)¹⁶ Jeffrey Shaw also broke new ground by combining multimedia effects with a virtual reality environment. The 'City' is a computer-controlled and projected virtual urban landscape made up of solid three-dimensional letters that form words and sentences instead of buildings along the sides of the streets. The architecture of text replaces exactly the positions of buildings in the real cities of New York and Amsterdam. This spatial transformation of narrative is literal in every sense.

Alternative Spatial models

Bicycling through this city of words is a journey of reading, choosing a direction is a choice of text and meaning. The image of the city is projected onto a large video screen in front of the bicycle, mounted fixed like an exercise-bike. Feed-back mechanisms attached to the pedals and the handle bars simulate a feeling close to that of cycling through a real environment. A small liquid crystal display just in front the 'cyclist' locates him or her within the overall plan of the city. The texts have a close correlation to the history of the city, being fictional tour-guide monologues delivered by illustrious sons of the city, such as Donald Trump in the case of New York. The structure is predetermined, the journey is not.

In multimedia pre-scripting of every anticipated audience reaction is essential, but the complexity of such an approach is staggering. The solution for many authors has been through this spatial mapping of

narrative, often in the form of mazes which rely on gatekeeping game and curiosity to drive users on in 'pursuit of a quest'. This creates an impression of narrative progress (even if it is absent) and is common in CD-ROMs such as *Freakshow*, *Myst* or *The Seventh Guest*.

However, if we examine the development of early theatre, we do have access to quite other models as examples of social and participatory story spaces without predetermined outcomes. For instance, in early Greek drama the players and audience were indistinguishable, occupying the same arena and participating in the action.¹⁷ Such spaces are also provided by ceremony and ritual: symbolic affirmation of spiritual watersheds or transitions. These are precise narrative codings of resonant moments in both a culture's development and

individual lives, a rules-based and compelling immersive **experience**. They often embodied the primary narratives of adolescence, maturity and death, where the boundary between author and participant, actor and audience was dissolved.

Narrative does appear to underlie our deepest mental structures – Carl Jung has outlined the narratives of the collective unconscious and the process of individuation and demonstrated how ritual and rites of passage externalise such structures in a society's culture.¹⁸ Narrative as a spatial metaphor is ubiquitously implicit in many forms of cultural expression: in mythology (e.g. Aboriginal Songlines) and everywhere in religious architecture.

A Gothic cathedral such as that at Chartres is the work of many hands, guided by a shared and often repeated vision. Its beauty is both in the detail and its overall shape, a metaphor of the natural universe in stone:

forests, filtered light, soaring trunks, interlaced branches. Immediately recognised, its architecture can be read by the worshipper either as a series of self-directed journeys or as a guided ceremony – for example, by tracing the floor maze on their knees as an analogue of pilgrimage or the stages of the Latin Mass.¹⁹ This image serves as a useful model for an immersive narrative environment – the only limits of agency are the fixed walls and the rules-based rituals of Christianity, where the medieval mind found a living enactment of religious narrative.

In our current research on interactive narrative in the *Dreamhouse*²⁰ project at the University of the West of England, the Ship of Fools group are seeking to bring such an experience up to date, combining spatial,

ritualistic and dreamlike elements. As in many other games we find ourselves in a house. However, here the house stands as a place of identity, a place that offers us experiences that reflect upon who we are. In the dream world the house represents self, a space of memory and formation. Here it is a place where we tell stories, a narrative space. Stories which interrelate to create a space of reflection. Our walk through the house offers access to a number of rooms or experiences. Each has been designed by an artist reworking traditional storytelling structures. So the house becomes an interactive theatre, where different tales are triggered by user exploration.

The bland domestic environment of a real suburban house (in fact a real Barratt's Show Home in a suburban estate at Bradley Stoke, the negative equity capital of the UK21) is the main interface. Through various devices – doors, windows, mirrors and other objects – gateways are opened by the user to the narratives of a semi-mythological world. The piece focuses on the transmuting of known mythologies into more personalised or contemporary forms. Various rooms are appropriately matched to the different psyches of those involved in authoring the piece. Short connected narrative fragments can be awakened by the user through an examination of the interface

environment. A visitor to the house can interact with these presences and be caught up in their world, often through a response to a riddle < enigmatic question.

Agency and independence

The themes of intimacy and alienation are explored through non-linear narratives presented through such devices as multiple talking heads, each with their particular fragments, or through a hall of sleepers who can be individually awakened. The interactive house is a place of magic, permeable to other mythic spaces, but the narratives involved attempt to form a bridge between the personal and the political.

Various sources of narrative structure and imagery have been adapted ranging from Oedipus, Orpheus and Euridice, Theseus and the Minotaur, Icarus and Daedalus, Celtic domestic myths and legends, through Biblical reference and stories, to the modern mythologies of

Science and Technology. The literature is not simply reworked, it is reformed for the new medium. For example, all the protagonists in the Theseus legend talk in poetic duologues, precisely counterpointed against each other, but only one character is audible at any one time. The audience must locate the story somewhere in the middle of the two monologues. This classical interpretation is further counterpointed throughout the piece by Myrhh, a street-wise 'bag person',²² who pops up unexpectedly to comment on the action and to offer objects which allow the user access to related narrative fragments.

In speaking of the pleasures and engagement of VR environments, Janet Murray of MIT's Media Lab identifies 'immersion, rapture and agency' as the key requisites of interaction in virtual space. While these certainly identify the pleasures of the medium, they do not of themselves create the complexity of meaning found in the fixed structures of traditional forms. Char Davies's *Osmose*²⁴ is a case in point, where a user can float through a semi-transparent virtual world viewing natural processes, gliding effortlessly through trees, following the rising sap. It is a beautiful 'tableau vivant', but has more in common with landscape painting than narrative form.

The use of simulation to create surprise and anticipatory behaviour in a user or viewer may be the required ingredient. Even simulation in commercial models such as *Sim City* or *Civilisation* fascinates its users, using a type of probability schematic to form the story. The player/participant/user follows formal and rule-based interactions for pleasure and stimulus, but is nevertheless conscious of participating in an apparently reductive medium, incapable of addressing the deeper existential concerns of art. This lack of resonance seems precisely caused by the random shifting nature of its unfolding narrative and the absence of characters (although the causality of time and action is maintained).

In the search for narratives without predetermined scripting, the use of independent agents by artists will increasingly lead towards what I would term the 'Pinocchio' strategy: the granting through artificial life algorithms of autonomous agency to individual characters (at present more a pious hope than a reality).

Laurel's research work in interactive narrative led directly to the Oz project²⁵ at Carnegie Mellon University's Drama Department which used live actors and directors to test Laurel's rules-based coda for dramatic interaction in virtual space – the ostensible reason for not actually

programming the piece was cost, but perhaps encoding the complex rules of drama and character are well beyond any programmer's ability. At present, the state of the art seems to be at the level of Carrie Mellon's *Lyotard*²⁶ interactive cat project or MIT's attempts at programmed behaviours, exemplified by Bruce Blumberg's virtual dog in the Artificial Life Interactive Video Environment²⁷ where a computer generated ball-fetching creature is mapped onto a mirror image of the real user's environment. The wooden nature of such experiments to date suggests that they might need more than the attentions of a 'Good Fairy' to breathe artistic life into their frozen hearts.

Interactivity in narrative remains a challenge to critics in two aspects: form and meaning. In the experience of any serious work of art the user must invariably map that narrative onto a whole range of cultural and historical references and resonances (a process confused by Barthes as the 'death of the author'). This process is not medium-specific. Interactivity may never introduce more to art than this process manages already, even when the narrative is conducted by autonomous agents. And just as in the great religious debates around first movers and free will, the author remains there as the architect, no longer a direct voice or manipulator of plot, but creator still. Perhaps after all, the 'audience's freedom is ultimately measured not in terms of activity or interactivity, but in the ability of the work to convey the complexity of meaning found in all successful artforms.

1 'Backstory' is a common Hollywood scriptwriters' term referring to the establishment of events preceding the current action by whatever narrative devices are deemed necessary.

2 Malcolm Le Grice, 'Kismet, Protagonism and the Zap Factor', *Millennium Film Journal*, no. 28 (Spring 1995), pp. 6–12.

3 Grahame String Weinbren, 'Mastery-Computer Games, Intuitive Interfaces and Interactive Media', *Leonardo*, 28, no. 5 (1995), pp. 403–408.

4 Andrew Cameron, 'Dissimulations – The Illusion of Interactivity', *Mute Digital Art Critique*, no. 1, UK (Spring 1995), p. x; and on <http://www.wmin.ac.uk>

5 Roland Barthes, 'Introduction to the structural analysis of narratives', *Image – Music – Text* (London: Fontana, 1977), p. 79.

6 Gareth Rees, *Tree Fiction on the World Wide Web*, at web site

<http://lucilia.ebc.ee/~enok/tree-fiction.html> (as at 30 January 1997).

7 Cameron, 'Dissimulations', p. x.

8 Robert Coover, *The Babysitter*, in *Pricksongs and Descants* (New York: Penguin, 1970), pp. 206–239.

9 Weinbren, op. cit, p. 408.

10 Grahame String Weinbren, *Sonata*, exhibited at the Institute of Contemporary Arts, London, UK, September 1994.

11 Jon Dovey, *The Toybox* CD-ROM, Video Positive (Liverpool: Moviola, 1995).

12 Malcolm Le Grice, 'The Story Telling Machine', public lecture. Watershed Media Centre, Bristol, UK, Spring 1996.

13 Bill Seaman, CAIA PhD seminar, Newport College of Art and Design, UK, Spring 1996.

14 Cameron, 'Dissimulations', p. x.

15 Brenda Laurel, 'Placeholder', presented at Banff Centre for the Arts, Alberta, Canada, 1992.

16 Described in detail in 'Legible City, Digital Dialogues', *Ten.* 8, 2, no. 2 (Autumn 1991), pp. 46–47. For further discussion of Shaw's *The Legible City* and Weinbren's *Sonata*, see also Erkki Huhtamo, 'Seeking Deeper Contact: Interactive Art as Metacommentary', *Convergence*, 1, no. 2 (Autumn 1995), pp. 81–104.

17 Sally Jane Norman, ISEA95, Montreal, Canada.

18 Carl Jung (ed.), *Man and His Symbols* (London: Pan Books, 1978).

19 Sig Longren, *Labyrinths – Ancient Myths and Modern Uses* (UK: Gothic Image Publications, 1991).

20 Ship of Fools group, Dreamhouse CD-ROM, research project on interactive narrative and new media at the Faculty of Art, Media and Design, University of the West of England, Bristol, UK, 1994–96.

21 Barratt is a major UK home builder and has built Barratt housing estates up and down the UK. As a consequence of the housing boom in Britain in the late 1980s and the subsequent slump housing prices fell sharply in the early 1990s, leaving many home owners with mortgages far in excess of the value of their properties. Bradley Stoke in the South West of England experienced the worst negative equity problem in the UK, to the point that the town was nicknamed 'Sadley Broke'.

22 A latter-day British colloquialism for a homeless person who roams the streets carrying their possessions with them in bags.

23 Quoted in Charles Platt, 'Interactive Entertainment', *Wired*, 1, no. 5 (September 1995), p. 63.

24 Char Davies, *Osmose*, presented at ISEA95 at the Museum of Modern Art, Montreal, Canada, in September 1995.

25 Described in Brenda Laurel, *Computers as Theatre* (Boston: Addison Wesley, 1991), pp. 188–192.

26 Details can be found on the Carnegie Mellon University web site at <http://www.cmu.edu/>

27 Charles Platt, Interactive Entertainment.