

ISEA 1996

Interactive Narrative- Educating the authors

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Introduction

In the brief time that interactive narrative has existed as a part of digital media, it has continuously been transformed and reinvented both in its forms and through the audience's 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 W.H. Griffiths or Eisenstein, 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.

Defining its properties

There is no clear juncture between linear and non-linear forms. It is simply untrue that linear media dominate the form of narratives. Many narratives break the linearity of time or viewpoint. Where would Hollywood be without the "Backstory" or the post-modern novel without its sudden shifts of voice 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 .

While any definition of narrative must surely revolve around a shared imaginative process of construction, this process can be linear or non-linear . To be effective it demands an active participation on the part of the audience. How then does interactive narrative differ from preceding forms? While this debate has often revolved around issues of authorial control or its abdication. It is my contention that so-called interactive media contain the potential to liberate writers and artists from the illusion of authorial control in much the same way as photography broke the naturalist illusion in art, exposing it not as an inevitable form, but as another set of conventions

For the artist willingly struggling to achieve transfer of control of the narrative 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. Teaching the construction of effective models implies a precise understanding of those structures. Clarifying the use and mis-use of these forms and the genres they now inhabit is compromised by a lack of achieved examples and adequate authoring tools.

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

“However 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 programmes this is determined by where on the screen the viewer has clicked or which key has been depressed. The underlying programme 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 programme that takes a specific approach to interactivity, may begin to believe that it is the only, the right, or the best approach” 3

Typical “Tree” structure for hypermedia narrative

This schematic domination of the structure at the expense of content has led to the adoption of the tree as a dominant form . Even modifying such a structure to reconverge the outcomes into a more manageable shape merely increases the mechanical and contrived nature of the narrative. In the *Ship of Fools* first research production ‘Media Myth & Mania’ 6 in 1993, we encountered the intrinsic problems of the tree form, which forces the participant to repeat a part of the logic branching on each replay and offers only pre-determined paths, constraining any real freedom of choice in the development of narrative. The immediate strategy we adopted to compensate for these constraints of structure was one of pastiche and humour, rapidly switching position and viewpoint to encourage the audience towards a critical handling of the material.

Designed as an interactive spoof game, using digital sound and photographic sequencing, it examines issues of power and control of the mass media by a multi-choice biographical journey through the life of a media Mogul. The individual player identifies with the protagonist, where anarchic humour is employed in various parodies of contemporary biography . Based on this data the player makes moral choices at various life stages viewing the consequences in dramatised photo-romance style tableaux. Three years on, the whole attempt now seems a trifle naive and already dated -such is the pace of development in ideas around this medium.

Inertia in artistic practice and commission 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 rely on these simplistic or limited structures and also tend to remain mere extensions of prior spectator modes such as video, or cinema. The critical problems are further muddled by a tendency to lump all genres of interactivity under the same general heading.

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?

In an influential essay in the *Millennium Film Journal*, Andrew Cameron has argued that most hyperfictions are for the above reasons likely fail, unless our understanding of the audience's role is radically transformed. But his argument is ambiguous about future strategies for creating interactivity. He focusses on the computer game as a way forward, ignoring other possible 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.”¹⁰ The solution for many authors has been through the spatial mapping of narrative, often in the form of mazes which rely on gatekeeping games and curiosity to drive the audience on in “quest” mode. This creates an impression of narrative progress (even if it is absent) common in CD-rom narratives such as *Freakshow*, *Myst* or *The Seventh Guest*. At Bristol, the construction of alternative models in physical form is encouraged in students, who can then perceive potential narrative cross-links which might otherwise be ignored.

New Structures

If the symmetrical rigidity of the game seems a 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 as in the novel, where the user is freed both from the slavery of linearity and the reductivism of branching plot choices? In the earlier written work of Robert Coover, we find an attempt to map a different approach: the sudden move from stream to stream of parallel lives or consciousnesses. In *The Babysitter*¹¹ interwoven scenes are retold with ever more fantastic erotic vigour, as though a heavy breather had control of a narrative joystick and kept pressing a “more bizarre” button. This method has transferred seamlessly into his later hyperfictions. This “electron shell” structure offers a possible structural alternative to the common branching hyperfiction or spatial mapping.

Grahame Wienbren also proposes an alternative model, a free two-way transaction between material and audience, only partially achieved in his own interactive cinema piece “Sonata”¹²

“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.”

In Graham Weinbren’s *Sonata* 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.

This creation of meaning by the audience through the association of parallel stories or story fragments avoids the problem of chronology, since the arbitrary jumps can adapt to allow time flow coherence, as well as being able to convey meaning in the same associative way as in dreams. Such a structure can be envisioned as in the diagram below:

This model has proved to be a valuable one for students to explore: Ian Whalley’s experimental student *Conversation Piece 14*, parallel conversations, recorded in front of Matisse’s *Snail* in the Tate Gallery anchor a dynamic multimedia typographic interpretation of the human interactions. Viewpoints can be accessed by selecting the representations of two pairs of spectators. Casting himself in the role of the observer, his wry internal thoughts counterpoint their banal blather. Seemingly a piece of lightweight humour, the work has to be rerun several times before its actual density is revealed.

While Jeffrey Shaw in *Legible City* and Graham Harwood in *The Rehearsal of memory* have already attempted to map narrative space onto the surface of a city or the human body; in David White’s student work *Inside Woody Allen’s Brain*¹⁴ he attempts to map narrative onto psychological space, matching familiar fragments from Allen’s films to moving text projected in the form of an audience’s questions, who thereby assume the role of his psychoanalyst. The piece depends entirely on inflection. The spatial intersection of moving 3D icons and the written questions’ position allow for a wide combination of responses. Allen’s thoughts lie scattered on the floor like children’s toys. By picking up a New York cab and using it as a cursor the floating questions respond with Manhattan-based material. Intersect a question in front of a comic persona and the inflection is comic, intersect over a serious persona and the answer is correspondingly deep. Allen’s alter ego responds accordingly as a series of integrated quick-time movies of him agonising on the couch.

In Jon Dovey’s *Moviola Toybox*¹⁵ CD rom contribution, *The Desktop Theatre of Amnesia* (Jon is a member of the Ship of Fools research group) the techniques of parallelism were tested in a more formal structure, as emotional states and their visually equivalent symbolic analogues are mapped onto a matrix of Quicktime mini-movies, like multiple personalities caught inside adjacent frames, reinforcing poetic resonance by proximity.

Simple Matrix model of interactive narrative

This approach was further developed in Lorraine Atkinson's student work *The Streets I knew so well*¹⁶ by initially creating 3d model visualisations. Based on memories of living in Berlin for several months, the matrix of a mental journey is literally mapped on screen. The user can bridge into deeper levels of the matrix through half images which correspond to a concealed matching half, which in turn starts a new narrative section. The images release ever greater levels of detail, both revealing hidden words and accessing richer combinations of sound and moving images, unfolding in the shape of a swastika. This matrix journey is an obviously appropriate one for computer narratives, mimicking the structure of digital memory and capable of extension into a hugely rich collection of fragmentary mini-narrative blocks. This approach has been employed by practitioners such as Malcolm Le Grice¹⁷ and Bill Seaman¹⁸ as a way of neatly side-stepping the strait-jacket of articulated narrative, allowing the audience to set the selection criteria of matching, but 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".

Spatial analogues and immersive environments

While spatial analogues of narrative remain, as we have seen, one of the dominant forms in many game-like quest stories on CD rom, such forms are derived from the natural need for a participatory spatial environment in VR. In multimedia all the imagery is pre-created, in VR only the model is generated. The audience creates its unique 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. " ¹⁹

The role of the artist is radically 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, he or she is no longer author of the events set in motion by the audience.

Alternative models

If we accept, as Cameron contends, that games can be seen as coherent templates for new forms of interactive narrative. Can such commercial models as *Sim City* or *Civilisation* be really much more than simply fascinating examples of complex

simulation . I confess, it is true that the player can often achieve full immersion and engagement with the unfolding growth of the narrative. But in playing such games, one is naggingly conscious of participating in an apparently reductive medium, one 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 (although the causality of time and action is maintained).

But 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 . Such as are provided by Ceremony and Ritual- symbolic affirmations of spiritual watersheds or transitions, precise narrative codings of resonant moments in a culture's development as well as in individual lives, a rules-based and compelling immersive experience , often embodying the primary narrative mythologies 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 -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 culturally.²² Narrative as this type of meaningful spatial metaphor is ubiquitously implicit in every cultural expression : in mythology (Aboriginal Songlines) and everywhere in religious architecture.

In the current Dreamhouse project²⁴, Ship of Fools were seeking to bring such an experience up to date, combining symbolic 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 inter-relate to create a space of reflection. Our walk through house offers access to a number of rooms or experiences. Each has been designed by an artist reworking traditional storytelling structures around a particular mythology. So the house becomes an interactive theatre, where different tales are triggered and linked by audience 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 U.K.) is the main interface. Through various devices-doors, windows, mirrors and other objects, gateways to the narratives of a mythological world are opened by the user. 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 viewer through an examination of the interface environment. A visitor to the house can interact with these presences and be caught up in their world .

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, Biblical reference and stories and the modern mythologies of Science and Technology. The literature is not simply reworked, it is re-formed 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.

Daedalus The Sybil

Wings and rain Under sea
A slow pageant spiralling to madness A body rolls and shifts
I remembered falling : in strong currents
Stars or something worse Ambition and ecstasy curled in rictus
Smoking to the sea Picked by fishes

I connect nothing Your care, your mind
on the shore

The god's eye blank, The god turns away
vengeful ashamed

The Sybil spelled in signs Locate your heart
hissing, urgent open your armoured closeness
engraved in madness locate a centre

At Cumae I raised Build around the flame
an architecture of atonement in tender stone
For my deep neglect

At Cumae I wept and calculate its beauty

Conclusion

In speaking of the pleasures and engagement of VR environments, Janet Murray of MIT Media Lab identifies "Immersion, rapture and agency"²⁵ as the key factors 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* ²⁶ is a case in point, where an audience 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, with more in common with landscape painting than narrative form.

In the search for narratives without predetermined scripting, I believe that through use of independent agents, artists will increasingly be led towards the granting of autonomous agency to individual characters-at present more a pious hope than a reality.

Laurel 's researches in interactive narrative led directly to the Oz project 27 at Carnegie Mellon University Drama department which used live actors and directors to test Laurel's rules-based coda for dramatic interaction in virtual space-the ostensible reason was cost, but perhaps encoding the complex rules of drama and character are well beyond any Artificial Intelligence programmer's ability at present. The end of such simulations must be in convincing forms of artificial life and the complex coding of autonomous agents using genetic algorithms. At present the state of the art in actual programming seems to be at the level of Carnegie Mellon's Lyotard 28interactive cat project or MIT's attempts at programmed behaviours, exemplified by Bruce Blumberg's virtual dog in the Artificial life Interactive Video Environment²⁹, where a computer generated ball-fetching creature is mapped onto a mirror image of the real user's environment.

In its small way Andrew Bourne's "Trees" uses a measure of programmed behaviours, in agents representing the two sides in a road building dispute. The audience can intervene or remain passive, changing the outcome in a different way each time. Their interventions will prompt the writing of a poem concatenated from fragments, which comments on their commitment to the cause at the end of the piece.

Only through the open minded commitment of artists, writers and programmers who are prepared to explore the full expressive potential of the medium can we even begin to see a meaningful artform emerge. The nurturing of environments where collaborative working can blossom is the necessary pre-requisite.

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