# Signs of telling: narrative voice and the interactive

Alan Peacock University of Hertfordshire School of Art and Design

E-mail: a.d.peacock@herts.ac.uk

#### Abstract

In terms of sign systems and the way they are used, the experience of the interactive resembles nothing else so much as it resembles the experience of narrative.

Narrative is best understood as a relationship between a Teller and a Listener, a relationship that is formal, moral and structural.

The interactive reframes acts of narrative from re-counts and re-presentations towards simulation and generation, from editions to instances. This markedly affects the kind of signs that work within the semiotic ecology of narrative relationships, unsettling the notion of Telling, and re-working the 'voice' of a narrator

Narrative and Culture are inextricably linked in the forming and continuance of world views. Narrative is a meme, and interactivity a meme variant of narrative. Change in the semiotic economy of Narrative, in the meme and its function, implies equivalent change in culture and world views (ideology).

Keywords: interactivity, semiotics, sign systems, narrative, culture, story, memes,

#### An issue

The discussion of narrative is awkward nowadays. This is because new media technologies, and interactive technologies especially, have disturbed not only our experiences of what narratives are, but also our cultural understandings of what narratives can be and, so, how narratives relate to and model, transmit, extend, confirm, contend with our understandings of what our world can be.

In one sense, because they unfold across time, stringing together a sequence of events connected by a logic of cause and effect, all interactive media may be thought of as narratives. Those events work in the many and different modes of operation, perception, concentration and comprehension that are necessarily part of the experience of the interactive. From the semi-automatic nanomoments of the cybernetic loops included in moving a cursor across the screen, through the

decision:button-click day-to-day use of spreadsheets, word-processors, web-browsers, to the macro-moments of emotional reward and psychological insight that accompany the completion of an interactive fiction, in some sense these experiences remain essentially experiences of 'narrative'.

However, in some discussions about interactive media, most notably perhaps in relation to new media artworks and games, narrative is a contested term.

#### Narrative

This diagram (Figure 1) informs much of the discussion to come. It is a representation of sets of sign systems, of semiotic processes, that, working together form the experience of narrative. All parts are equally necessary, and together they form a larger semiotic ecology.

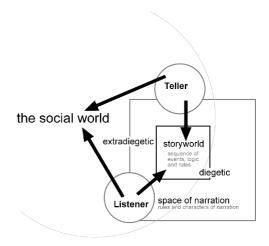


Figure 1: the act of narrative

In the world of this paper *narrative* refers to a necessarily social activity in which a there is a Listener, a Teller and a story told. These terms are used carefully. The Listener elsewhere may be named as reader, player, viewer, audience, and similarly the Teller may be called artist, author, director. The terms are not important, their relationships with each other, with the act of narration and with the story told, are.

In broad terms, and taking the first act of narration to be the one that establishes their roles, the Teller tells and the Listener hears. In an economy of signs the Teller gives, supplies, provides, the Listener takes, consumes, receives. Tellers invent Listeners and Listeners invent Tellers. The relationship is not mutual nor reciprocal but existential. Acts of Telling establish both a Teller and a Listener. Acts of Listening bring into being both the Listener and the Teller. Simultaneously.

Both or either Telling and Listening are deliberate, conscious acts. They require acts of mind such as concentration and an active, willing, if temporary, belief in the thing told, critical understanding, prediction (without which there can be no surprise, nor any satisfactory conclusion), phrasing (the syntagmatic selection of words, events, sequence, posture, tone, effects), and other things, too.

It is important for the discussion to come to note that nothing flows from the Teller to the Listener. Both of them relate to the storyworld (that is to the semiotic processes, the sign systems of the storyworld) in a process of discourse. And while the Teller may be thought of as the (irreducible) author or maker of the storyworld text, the Listener is also active within the narrative space. Her concentration and attendance, her alertness to the signs, and the intertextualities she brings to the text, constructs the narrative she hears.

Narratives function to bind a community through sharing, and to maintain a shared understanding of a world view. That understanding is structural in that it concretises and legitimises the overlapping domains of morality and materiality, and it is social in that it happens in the discourse relationships of the act of narrative.

### Interactivity

Interactive is an awkward word at this time. It has a general meaning which describes the inter-relationship of objects and people. In this meaning all things are interactive because our experience of things is always interactive in the sense of mental engagement with the object, in the sense of discourse with the object which has its own separate existence. In a more specialised sense interactive refers to a particular set of technology mediated experiences. In this sense the word refers to the discourse with artefacts which are, in some way, changed or brought into being by the act of viewing them and they do not have a separate existence outside of the act of viewing. It is in this, specialised sense, that interactive is used here.

Interactivity is understood as a 'cybernetic loop' in which actions and displays are irrevocably linked as instances of communication and control, and through which a semiotic process runs.

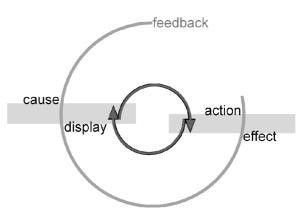


Figure 2: a cybernetic loop of interactivity

Cause and effect sweeps clockwise in this diagram, and while the sweep may be erratic and irregular, it is characterised by the continuity of a semiotic process in which meaning is made, derived, sustained, confirmed, replicated, denied – in short by a semiotic process that is congruent with the narrative experience. In terms of sign systems and the way they are used, the experience of the interactive resembles nothing else so much as it resembles the experience of narrative.

In this cybernetic loop user and system mutually modify the display of one and the actions of another. The user/player's experience includes an awareness of how much they shape or influence the unfolding sequence of events. This is Janet H Murray's *agency* [4], an effect of the way that the loop pauses around the user's actions, holds the run of cause and effect, waiting for action.

The cybernetic loop of interactivity is about communication:action and display:control that form a continuity of feedbacks and mutual modifications running through time Although a clear separation exists differentiation of states within the loop, within the user (perception, cognition and decision) and within the system (event/conditions, data retrieval/calculation, render/assembly) there is no clear differentiation between display and action, both are communication and both are control. Within this loop, display and action blur in the form of rollover images, cursor movements, the tap of a PDA stylus. They spin away in a melee of other feedback loops spawned by acts of display and the display of actions, by sensations and meanings.

Interactivity here refers to a (necessarily) semiotic engagement with digital technologies, to artefacts composed of changes of sound, image, moving images, letterforms, graphic shapes, touches, presses and movements, to mental states of certainty, anxiety, excitement, frustration, clarity and confusion. To experiences which make up a range of increasingly important cultural activities.

# The triple logic of storyworlds

As well as the Teller and the Listener, acts of narrative include the *story* which is defined by a dynamic triple logic.

One logic is that of *plot*, the order of events bounded by a logic of cause and effect (as the motivations of characters, as *a priori* conditions and as *a posteriori* consequences for actions within a described and supposedly physical world, as inversions and purposeful disruptions of the usual rules of the social world), a logic which may be particular to the one narrative (idiosyncrative), or derived from more general logics used in other narratives and the social world (normative).

Sequence is also and likewise a logic of itself. It rules the way time is handled. Compression and elision, extension and dilation, regularity and even-ness, reversal, flashback, summary, repetition, these are time codes of storyworld.

A third logic plays within story. Dynamically linked with both *sequence* and *plot*, the logic of syntagmatic editing deals with characters, locations, numbers, explanations, references, descriptions, which may be thought of as content. Syntagmatic editing is a necessary condition for story because experience (the paradigm) can not be reproduced of itself. Like all editing this one is not value free. Acts of selection, omission and inclusion function connotatively as much as denotatively within the sign systems of narrative.

Story, then, is the thing told that is boundaried by the triple logics of sequence, plot, syntagmatic editing. As such story must always be a representation, but not necessarily a representation. Story not only recounts the world but invents and extends it.

In the relationship of the narrative it is the Teller's operation of the triple logic that forms not only the content of the story but also semiotically locates a viewpoint and a structure. In the act of Listening it is not only the content that is consumed, viewpoint and structure are also heard, read, seen.

Example: spreadsheet as narrative

Understanding narrative as being firstly a relationship and secondly a story bound by the triple logic means that a spreadsheet like Excel can be understood as a form of narrative.

Plot here, the processes of cause and effect, are experienced, particularly dynamically, in the way a simple action results in many changes. Amending the number value or formula in one cell resonates through all interconnected cells, formulae and values. Sequence becomes play as what-if scenarios are tried out to see the effect of a change here, an alteration there. Syntagmatic editing defines the selection of cell contents, the things that are represented, calculated, noted, and noticed. The cells are taken for the world.

The relationships of the narrative act become like a mirror. The roles of Teller and Listener overlap and overlay within the cybernetic loop and its semiotic process.

## Interactivity and narrative

Interactivity is understood to be inherently 'narrative' in that it is sequential and arranges time, it is built around structures of cause and effect and is clearly syntagmatic (if only because spatially and temporally framed by the limits of display devices). These structures of cause and effect connect action/display within larger structures of meaning, and those larger structures, themselves, have semiotic function.

However, narrative is a contested term in the discussion of interactive media. As Lev Manovich notes, in the The Language of New Media, 'the word narrative is often used as an all-inclusive term, to cover up the fact that we have not vet developed a language to describe these strange new objects. It is usually paired with another overused word – *interactive*. Thus a number of database records linked together so that more than one trajectory is possible is assumed to create an "interactive narrative". But merely to create these trajectories is of course not sufficient; the author has to control the semantics of the elements and the logic of their connection.... Another erroneous assumption frequently made is that, by creating her own path... the user constructs her own unique narrative.'

What Manovich labels as narrative is more properly, story. His commentary privileges the maker, the author (the Teller) who has 'control' of 'the semantics of the elements and the logic of their connection' and takes from

the user or Listener an ability to experience juxtaposition and make connections, to link things and form meanings from fragments, to discover a 'logic', and 'constuct(s) her own unique narrative'., Manovich, *ibid*.

The triple logics of sequence, cause and effect and storytime, so deeply permeate the quotidian experience of our lives that they are organising principles for the way we read the world. It is an ordinary act of mind to organise in sequence, to establish chains of cause and effect, to compress, extend or omit time, to include and exclude details, events in syntagmatic editing - in short to create narratives. Faced with odd entries from Manovich's underlying database, that is, presented with entries which are un-authored in the 'logic of their connection' but which exist as a set of things, the ordinary response, is to form them into a set of related objects, to seek and potentially find a narrative of sorts and to fill in the gaps, to cloze the paradigm. Even to the point where the 'author' and their purpose is imagined, invented, evoked. This is the illusion of Eliza, and it is a distinguishing feature of detective fictions in books, films, televisions and computer screens. It is also the nature of the experience of narrative, the essential semiosis by which order is found, made, constructed, through which sensation becomes perception.

Manovich's model of an underlying database implies the Listener in some way selecting from pre-rendered units to build a more or less meaningful sequence. Elsewhere, emergent ludic theories contest the use of narrative as an adequate term for some interactive media.....

"Traditional media are representational not simulational. They excel at producing both descriptions of traits and sequences of events (narrative). A photograph of a plane will tell us information about its shape and colour, but it will not fly or crash when manipulated. A flight simulator or a simple toy plane are not only signs, but machines that generate signs according to rules that model some of the behaviours of a real plane. A film about a plane landing is a narrative: an observer could interpret it in different ways, but she cannot manipulate it and influence how the plane will land since film sequences are fixed and unalterable."

Gonzalo Frasca directs us to an alternative way of creating content, rather than a set of prerendered units there are a set of rules of representation and behaviour which generate content 'on the fly', and indicates that there is perhaps an essential difference between the *simulation* and a *narrative*.

[2]

Yet the simulation is experienced within the triple logics of story having sequence, plot and syntagmatic editing – sequence because events happen across time (even if it is a supposedly 'real' as opposed to a condensed time), plot or cause and effect because without that the rules of the world manifest in the behaviour of the 'plane' would not occur nor would it have the special case veracity of a simulation because the rules that are physics are, themselves, predicated upon ideas of consistency in cause and effect. Sytagmatic selection permeates the flight simulator, the monitor bound visual representation necessarily lacks detail, organs of balance remain unaffected by visual displays.

Frasca and Manovich identify an issue that the interactive - as simulation or as database:narrative - has reframed the experience of story, creating, as Manovich puts it, 'strange new objects'. However, what has been reframed is not story – for that is still bounded by the same triple logic – so much as the space of narration and how it is understood to relate to acts of Telling and Listening and the social world. In part that reframing is in a shift from acts of description to acts of representation – from a spoken, written or printed Telling, to a pictorial, or visually and sonically representational, one (a shift from arbitrary signs to apparently indexical signs). From a Listening which is understood as mediated by the personal position, the intervening consciousness of a Teller, to one in which there is no such intervening consciousness immediately apparent or available as a moral guide or syntagmatic filter of the world.

Example: paint packages as storyworld

Using bitmap image generation and manipulation software (such as Paint Shop Pro, Photoshop, Painter) illustrates some of these points

To use the package means entering the same kind of relationship with the software as characterises narrative acts. It means accepting the 'storyworld' of the interface- the icons of paintbrushes, sponges, magnifying glass, pencil, eraser - and engaging with the triple logic of the storyworld. Plot, that is cause and effect, is self-evident in each mark made within the monitor, sequence is the play of time asan image is reworked, History is used to undo, Save and Load revert to previous versions. Syntagmatic editing is implicit in the operation of every tool but especially in the underlying notion of Selection where operations affect only defined areas.

It is important to note that these packages are rule based and so simulational (or, perhaps better, generational) in that they are 'machines that generate signs according to rules that model some of the behaviours' (Frasca, above) of, well, light, and other visual media.

As with the earlier example of spreadsheets, the use of a bitmap image package reframes the relationships of the narrative act, mixing Teller an Listener through the loop of action and display, and forming meaning through its semiotic process.

# Signs of Voice

Narrative exists as a shared space (diegesis) which is separate from the social world (but part of it). The sign systems of narrative, that construct the act of narrative as a separate activity within the social world, prepare and maintain the conditions of Teller and Listener, and permit the story to unfold.

'.... narration usually obeys rules that define the pragamatics of (their) transmission. ... a pragmatics of popular narratives that is, so to speak, intrinsic to them. For example, a Cashinahua storyteller always begins his narration with a fixed formula: 'Here is the story of -, as I've always heard it told. I will tell it to you in my turn. Listen.' And he begins to close with another, also invariable, formula: "Here ends the story of -. The man who has told it to you is – (Cashinahua name)'

In the diagrammatic representation of the act of narrative (above) Teller and Listener are positioned so that they straddle the boundary between the social world and the space of narration. Usually Listener and Teller attend to one or the other exclusively. To attend to the storyworld means to move, in part, away from the social world.

The Teller is not necessarily the Narrator. The space of narration, which here surrounds and contains the storyworld, locates the rules and characters of narration. Here are located the signs about the story being told – its genre, purpose – and also the apparatus through which the story is told. The Teller and Listener, as it were, attending to 'pragmatics of transmission'.

The space of narration is the location of a semiotics of narration – the signs that indicate that a story is taking place (announcements, tone of voice, graphical style), the kind of story it is (genre), how it relates to the broader social world (parable, allegory, moral, simulation,

exaggeration, etc), and signs that start of the syntagm of 'the willing suspension of disbelief' – the selective act of concentration out of the broader paradigm of diffused mind and into the focussed act of engagement with the narrative and, within that, the story. And this syntagm of concentration is a necessary requirement of narrative and characterises it

The logic of the diegetic supervenes across the boundaries of the storyworld and the space of narration in which the rules of the storyworld and its separation from the social world are maintained. An extradiegetic logic supervenes across the space of narration and the social world. Together these logics locate the Teller and Listener, direct their concentration towards the storyworld, and bring into being the Narrator either as a charcter or as a 'voice'. Usually the space of narration keeps apart the social world and the storyworld, maintaining a space between the signifiers and signifieds of the diegetic and extradiegetic.

Example: word processing as narrative

In operations of cut,copy, correct, the semotic process of the cybernetic loop involved in using a word-processor, the cause and effect actions of typing and editing, the time-play of reworking, and the syntagmatic editings of selection and concentration, word-processing in clearly narrative.

In expressing ourselves (a telling phrase, perhaps), in selecingt the most appropriate word or term, to get the idea across the best we can – in this also is semiosis. In my selection of words you read more than the literal meaning. My selection functions connotatively and in my selection (my acts of Telling) is a story of position, viewpoint, structuring my understanding of this act of narrative. And in your acts of Listening you can read my position, location, attitudes, because your discourse with these words includes your knowledge of connotation, of the struggle to express yourself.

But when narrative moves from words told to images formed, how then do we hear position, location, attitude?

Cultural Continuity: narratives, memes, technologies

Social worlds are constructed through narratives and negotiated through accounts, speculations, imaginings, analyses, predictions, and explanations. They are perpetuated, reproduced, gain continuity and have currency in stories told between generations and across places.

No cultural phenomena has a single purpose – cultural economies (efficiencies of energy used in sign systems) mean that things have plural functions. Narrative is a way of transmitting factual information (denotative content, instructions) and more. The inter-relation of Teller, Listener, story is a modelling sign for other relationships such as ones of political power, economic activities, kinship ties.

Narrative is itself a technology and it uses other technologies also. Even the earliest narratives which (*we imagine, narratively*) were spoken, employ a technology of voice, changes in tone, vocabulary, rhythm becoming rhyme. Or (*we speculate, narratively*) are accompanied by musical instruments, drawings, carvings, tapestries, acts of theatre, ritual, courts. Historical accounts of book technologies abound, and their effects on narratives and cultures are discussed by McLuhan, Ong and others. Radio, cinema, television, computers, reframe and reform the interplay of narrative, technology and culture.

The environment of technologies in which narratives operate have a significant effect on the kind of narratives, the form of narrative, and the uses of narratives that are exploited.

The signs that technologies make of themselves (their integral sign-systems) work economically and dynamically with the (likewise integral) sign systems of narratives. Like overlapping patterns of waves some interrelationships of the sign systems integral to both technologies and narratives amplify the peaks and troughs with no additional input of energy. And some inter-relationships nullify peaks and troughs. In such a fashion some narrative forms are advantaged by particular technologies while others are disadvantaged. And, as with technologies, so with other parts of the economy of signs and values that is the culture. Within the sign economies of the culture some narrative forms resonate particularly while others languish. The prose novel, with its plots of unlikely coincidences and the moral complexities of motivated characters, resonates through Western industrial cultures, and the long heroic poem, languishes.

Interactive technologies advantage narratives in which Listener's work to construct stories from fragments. The ones we have seen so far advantage narratives that are forensic (the solution of puzzles, the assembly of evidence), or generational (simulations, the interplay of rules) more than narratives of characters, moral dilemnas and coincidences.

Example: Zork

A key Interactive Fiction, Zork is an archetypal interactive narrative – it is forensic and generational in the way in which the player has to discover and then exploit the rules of the world in our to solve puzzles.

Zork, is mediated by typed commands and text responses. Usually these are (apparently) objective descriptions of places, objects, the few others who inhabit the world, or lists of things. Occasionally the text responses have personality, character, step out of role, comment on our foolishness and the artificiliaty of the world it describes. As with Eliza, the voice of Zork brings a 'feeling' of character and personality and it is often experienced as a 'narrator' of some kind, but not one that tells the story as relating 'plot', that narrator function is reserved for the discourse of the player/Listener. See note 2.

### Interactivity as Meme

Cultures and technologies frame narratives which embed and embody the ideological structures of the culture, and which reproduce them with the necessary but subtle variation that ensures evolution, adaptation and survival.

Richard Dawkins has proposed the idea of the meme as a way of understanding cultural replication (*see note 1*). Broadly put a meme stands in relationship to the reproduction of cultures as a gene stands to the reproduction of biological organisms. Memes are subject to processes of variation and mutation (much as genes are) and survive only if they resonate within the host culture, only if they are adopted as patterns of behaviour or patterns of mind, and in some way advantage what other memes do.

Narrative is an ur-meme through which many other memes move and each is flavoured by the nature of the narrative, its relationships, locations, contexts, the technologies used

As a meme, interactivity can be understood as an experience that is a variant of narrative and is culturally consumed as such. Seen as a meme interactivity is astonishingly fecund [6], in a short period of time it has become a dominant cultural experience for many working in the techonomies of well-industrialised countries, and an increasingly preferred leisure activity also. Its fecundity indicates its survival within an environment where uncountable other memes compete, and

it may be taken to mean that its contribution to the culture in some way advantages, enhances, promotes the overall functions of the culture.

Culture-narrative-technology frame, and are framed alike, by ideological structures. A change somewhere is a change everywhere. A successful, fecund, variant narrative form implies changes elsewhere both before and after that meme appears. Before because the conditions necessary for its fecundity have to pre-exist its presence, and after because its fecundity is change itself. A change in narrative implies a change in technology and in ideology. Changes in ideology and technology which are embodied in the experience of narrative, of interactivity.

The possibilities of memetic change in narrative is limited because story itself, that is the threefold logic of sequence, cause and effect, and syntagmatic editing is not readily susceptible to change. These three logics are, themselves, particularly powerful memes in that they are prime shapers of the (social) world and in the ways they interconnect with other memes. So powerful are these memes that they are taken as the nature of things time flows, experience can only be discussed (that is shared and made part of the social world) by strategies of compression and elision, that is by the logic of sequence. Things happen and cause other things to happen. Without cause and effect the meme of (Western) science ... well, isn't. Syntagmatic editing, like sequence, moves experiences from the individual and isolated into the social and meaningful. However, the space of narration can readily accommodate change because this a place of relationships rather than representations. The relationship between the Teller and the storyworld, between the Listener and the storyworld, and between them both and the space of narration itself (which of course includes the signs of the other) is not only able to accommodate change but is a place of relatively frequent and rapid meme change.

Technologies, memes in themselves, reframe the inter-relationship of Teller, story and Listener, and have done so fairly frequently. To the point where change rather than stability may be thought ordinary. An oral tradition extended through iconic depictions, and itself reframed by the arbitrary signs of written texts and alphabets, the voice disembodied as radio, the dramatic body displaced as television, the larger move towards (apparently) indexical narrative media in the cinema and computer games, all of these are memes that reframe the relationships of the space of narration.

Interactivity is one of the most recent reframings of the relationships of the narrative acts – as such it represents a shift in our cultural understandings of what narrative is and can be. The contested meanings of narrative in current discussion and theorising is, itself, an indicator of the disturbance that is a paradigm shift in progress (see note 3).

In the labour (that is wealth generating) activities of knowledge economies the experience of interactivity, and its implicit narratives and ideologies, becomes a dominant experience. The social structures modelled in the narrative acts of material manufacture are fundamentally different to those modelled in the narratives of spreadsheets, word processors, image editors, web page authoring software, programming. The meme of interactivity is reproducing a different culture to those of hewing, mining, melting and materiality. And this is something that should inform every moment of design or discussion that addresses the interactive.

Voices and positions – narratives of the social world

All acts of telling, and so all acts of narrative, embed a 'voice' of the Teller in the space of narration and in the storyworld. All acts of telling are syntagmatic. The selections of editing, vocabulary, imagery, events, characters, are all connotative acts. All selections are connotative, and locate the narrative within the myths of the social world and the perspectives of the Teller.

In a spoken narrative or a written word narrative, the distinct voice of the Teller (and/or any invented narrator placed in the storyworld) is obvious and evident. It is an intervening consciousness, a syntagmatic filter, whose location, viewpoint, attitude is revealed connotatively in every operation of the triple logic. Our implicit awareness of the perspectives of others and our mental model of intentionality (the empathic awareness of all social animals) insists that we understand the position of Teller:narrators.

The notion of a world shared among individual members who are able, individually, to model the world and the perspectives on the world from the position of other members not only as it is now but also as it may be when certain actions occur is a pre-requisite of a social world. It is a requirement of co-operation (for example in hunting dog packs) and of the social itself.

One function of narrative is as a way of developing empathic models of the social

world, the perspectives and (likely) intentions of (collaborating) others. The relationship of the Teller and the Listener is a sign system modelling this. To work it requires consistency and congruence in the inter-subjective world, in things like the behaviours of objects (causes and their effects, effects and their causes) and subjects (motivations, resonses, actions) so that inference can become prediction (possibility becoming probabilities).

The triple logics of the story, and the interrelationships of Teller and Listener, form a semiotic process in which such world sharing, such models of perspectives and intentions (motivations) develop and are shared – and become believable (because if not believable then they have no worth). The connotations of the Teller, of the narrative voice, sign its perspectives and its positions, it difference from the Listener, and so The Listener and Teller are located. The sign world that Listener's inhabit is one in which connotation as difference is marked and clear. The careful use of word signs, the syntagmatic selection of adjectives, nouns and phrasing to cajole, insult, align, deny, persuade or whatever are part of every act of speaking and hearing. In such places as conversations, business transactions, academic papers, the reading of location and perspective is familiar and automatic. The Teller's voice not only locates them and theirs but also establishes the Listener's place and

In this the Listener is an active part of the sign system, an agent within the space of narration just as the user is an agent in the cybernetic loop of the interactive. The Listener constructs not the story but the conditions of the space of narration in which the story plays. And then from the fragments of representation – from the moments of cause and effect, the signs of sequence, the particles that have come from syntagmatic editing – from those fragments placed in the conditions of the space of narration, the Listener has the story, and has become the Teller too.

In the interactive, in the narrative space driven by the action:display sequence of the cybernetic loop, where Listener:Teller roles merge and mirror the narrator is a ghostly presence that may be our own shadow.

Example: cutesy cats and clever clips

The experience of interactivity resembles nothing so much as it resembles narrative. Narratives are social acts – there is no lonelier space than an uninhabited narrative space. Lonely and anxious. So, the narrative space of interactivity, with is ghostly narrator

who is both Listener and Teller – well, we are offered the opportunity to inhabit the space with characterful helpers, cutesy cartoon cats and intrusively helpful paperclips, system status boxes that are as polite as a butler.

## **Ending**

In the space of narration that is characteristic of the interactive the role of the Listener and the signs of the Teller are unlike those in other narrative forms, and so are the structural models and ideologies they carry as memes. For the Listener the active involvement in the construction of the story is imbricated with the actions that propel the cybernetic loop forward along its semiotic axis. The actions required to move the narrative experience along are of a special kind (Aarseth notes how different they are to the 'turning of a page' [7], Murray sees the 'agency' of these actions [4]) that literally bring into being the materiality of the text, summoning image, word, sound into transient, temporary and ephemeral displays of syntagmatic instances from otherwise invisible paradigms.

And the Teller seems to be rendered voiceless. Although we may detect an authorial presence, consciousness and even character (or at least the signs for these) in some interactive artworks, and even recognise the stylistic authorship of some games in their graphics, gameplay, puzzles and atmosphere, in much of the interactive the Teller is a particularly anonymous presence. At best they set the rules, provide the fragments, and say 'get on with it' to the Listener. Elsewhere, well, what is the 'voice' of Word, Excel, Photoshop? Similarly in software that functions as a simulator or generator while there may be a clear stylistic identity and a sign system that authenticates the experience as 'real' or 'equivalent', the authenticating sign system replaces the Teller as a person with the Teller as the machine faithfully following the laws of physics. The Teller (author, creator) effaces themselves to authenticate the reality of the engine and paradoxically affirms the narrative nature of the experience.

Interactivity, a variant of the narrative meme, remixes the roles and relationships of the space of narration. Quieting the voice of the Teller, augmenting the role of the Listener, including the semiotic process of the cybernetic loop and the emergent materiality of the interactive text, has far reaching effects in the ecology of signs of these narratives.

Interactivity is one configuration of memeplay across culture-narrative-technologies. As such

it embeds and embodies sign systems about the world and its possibilities of representation, and advantages stories which map out those particularities. It is not the only narrative form we have, but it is one of particular significance for the world we live in now.

'The ideological and cognitive functions of narrative are inextricably fused: the cognitive is the operational form of the ideological, and the ideological represents the political consequences of the cognitive. ..... (w)ith these interwoven functions, narrative maps the world and its inhabitants and locates us within that changing textual landscape, constantly broadening our mental cartography."

[8]

The voiced narrator is an intervening consciousness and models the viewpoint trade that is empathy, that is the social understanding of the validity and legitimacy of others. Spoken, written and printed texts carry clear signs of connotation, of viewpoint, in the redaing of the syntagmatic selection of words. In narratives that work through (apparently) indexical image and sound, connotation is necessarily less clear. When the form the text takes comes about through of the Listener's actions and recasts Listener as Teller, our ability to locate ourselves within that textual landscape, to identify and handle the ideological becomes questionable.

# References

- [1] Lyotard, Jean-Francois, The Pragmatics of Narrative Knowledge, from The Postmodern Condition in, McQuillan, Martin, The Narrative Reader, Routledge, 2000, pp 159
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- [3] Manovich, Lev, The Language of New Media, MIT Press, 2001, pp228
- [4] see Murray, Janet H, Hamlet on the Holodeck, MIT Press,
- [5] Frasca, as above
- [6] see Blackmore, Susan, The Meme Machine, Oxford University Press, 1999
- [7] see Aarseth, Espen J, Cybertexts, Johns Hopkins University Press, 1997
- [8] Kinder, Marsha, Narrative Equivocations between Movies and Games, in ed Dan

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- note 1: for a much richer and more detailed discussion of Zork see Montfort, Nick, Twisty Little Passages, MIT Press, 2003
- note 2: Richard Dawkins originally put forward the idea of memes which has been developed since then by several others, notably by Blackmore, cited above.
- note 3: this idea is drawn from Thomas Kuhn's work on the development of Science see Kuhn, Thomas R, The Structure of Scientific Revolutions, University of Chicago Press, 1967.