How to tell a good story in this digital world

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Abstract

Telling a good story involves using all your senses to communicate the story in such a way that listeners affix their attention to whatever part of the story they wish and yet are led along the narrative. Telling a good story is an art! Good story-tellers lead listeners along the narrative journey embellishing the story as appropriate to suit the story-telling conditions. This means that no two story-tellings are the same.

Yet in this day of digital content, unlimited perfect copies, end users, consuming content, and the sound bite, story-telling competes with the information and communication technology, facing sophisticated listeners who demand more of engagement and are used to be in control. Sequential narrative disappears and is replaced by directed listening. In this increasingly digital world, is it possible to tell stories as engaging and compelling as traditional story telling? Could we do better?

This paper will introduce the concepts behind the Testimony Software architecture and demonstrate its potential through some of the developments to which it has been applied: including museum kiosks, exhibition catalogues, proceedings of workshops and conferences.

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Introduction

Telling a good story involves using all your senses to communicate the story in such a way that listeners affix their attention to whatever part of the story they wish and yet are still led along the narrative. Telling a good story is an art! Good story-tellers lead listeners along the narrative journey embellishing the story as appropriate to suit the story-telling conditions. This means that no two renditions are the same.

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Why is this important?

Competing media avenues will make narrative redundant unless it can provide the sort of functions that consumers are becoming used to. Yet narrative remains one of the best mechanisms for passing knowledge from one generation to another, from experts to novices, between peers. The mechanism of narrative communication (or story-telling) is often promoted in knowledge management circles as a means of communicating knowledge between various stakeholders (see for example, Standards Australia, 2001). In the health area, it is widely recognised that recounting of experiences, for example from friends, relatives and fellow sufferers, is a major mechanism for gathering information that assist patients in deciding about treatment options.

In the technological push to provide communication channels involving information and communication technologies, such as the Internet, the narrative is being forgotten and replaced by directed access where a user is directed to chunks of information suspended in a context-free environment. Although suitable for some scenarios, there are many cases when this context-less environment does not provide what is sought – understanding, education, etc. For this, context is of prime importance and such context used to be provided by the story-teller. Reviews of Internet services by consumers abound with comments that the information needs to be simple, easily understandable, of high value, appropriate, non-threatening, etc – all concepts associated with context and normally provided for through the narrative (see for example, Consumers Health Forum, 2002).

Recent research in Internet technologies has focused on the search process. As the amount of information explodes (an anecdote out of the eHealth area, relates that a new medical paper is published every twenty-six seconds[1]) no one knows what is available anymore and existing, algorithmic based, search techniques are insufficient to provide access to what is required. So R&D is focusing on semantics (meaning and understanding) to resolve the *blind venetian – venetian blind* problem[2]. The Semantic Web (World Wide Web Consortium, 2001; Palmer, 2001) is the current buzz in the Internet research community that aims to allow, amongst other things, search engines

1 Personal communication, Professor Enrico Coiera, Director of the Centre for Health Informatics, University of New South Wales.

2 This problem is so-named because in the early days of text retrieval, using these two words in a search would turn up the same information despite them describing completely different concepts.

to use the meaning of information objects to assist in their appropriate discovery.

Electronic narrative, the mere conversion of oral story-telling into a digital format, is unrewarding, in the same way that *PDF'ing* a classic novel is unrewarding. Such literal conversion loses more than it gains. Can you image curling up on the lounge with a laptop or PDA to enjoy Tolstoy's War and Peace?

In a simple digitisation of a story, the listener loses all other senses except audio. This makes it difficult for the master story-teller to engage their audience because many of the normally available communication channels (ie. the other senses) are now no longer available. Special skills have been developed to facilitate audio-only story-telling, such as a radio play. Television and film use visual means and alter the balance between the importance of video and audio, with audio often said to complement the moving image. Effective narrative is said to compete with the moving image in the same way that sub-titling refocuses the audience's attention away from the moving image.

Dorner (1993) is an interesting discussion on the change in writing style since the introduction of electronic technologies. Dorner describes how in the nineteenth century, writers regarded the reader as someone to woo, they addressed the reader directly using such phrases as 'Dearest reader' or 'Gentle reader'. The aim was to show how much they valued the friendship and thought very carefully about the level at which to address the reader. In more recent times, that mode of address has become the 'oi-you'. The reader is out there and being manipulated. The reader has become the user. Any argument has to be addressed in the first paragraph, details bullet-pointed, numbered summarised, displayed in charts and graphs – all broken into discrete chunks. This supports users scanning but no longer reading. The author makes it easy for his content to be re-processed as data or subject to data capture. In the computer age, as soon as the words are rendered on a screen they no longer look like property and this may explain the difficulty in today's age with copyright of electronic content. The digital word can so easily be incorporated into another document or merged with personal annotations, easily blurring the sense of ownership.

So Dorner's argument would add weight to the notion that straight the conversion into the digital form loses engagement. Without doing something special, the digital form breaks the relationship between the author and the reader, the story-teller and the listener.

Yet the technology exists to do better, to deliver multiple parallel synchronised media through the digital pipe. Standards such as SMIL (World Wide Web Consortium, 2005) exist to allow the utilisation of many different media to tell a more engaging story. Digital movies do tell engaging stories, whether at the cinema or on a home entertainment system. Using sophisticated media and technology, they can draw the viewer in, to engage them in a way that is difficult for a lone audio stream.

But why then does radio survive?

Radio, whether digital or analogue, is a content stream that does not demand to be the focus of attention. Most radio is like 'musac', it fills in the background and requires no attention. An anecdote from a DNA researcher shows the power of background audio processing in humans: when scanning DNA samples for specific base sequences, they used to use a tool that converted each base into a distinct tone and then just set the thing going in the background whilst the researcher went on with more foreground

tasks. They were able to recognise the specific tone sequence when it was played even though they were doing other tasks in the foreground[3].

Radio has also developed some more engaging mechanisms that require foreground processing, such as radio plays. Radio also has been extensively used in sports commentating, to the effect that people watch the cricket on the television with the sound turned off and have the radio on for the more engaging and informative commentary. In the early days of cricket commentary, commentators used 'synthetic cricket', sound effects of a crowd and tapping a pencil onto the desk to simulate the sound of ball striking bat (ABC, 1998).

Without these extras, a simple audio stream would struggle to retain an audience today, an audience that has been brought up on parallel synchronised multiple media streams.

Engagement in the Digital World

In today's digital world it takes something special to stand out of the crowd, to draw an audience. Schemes like blogs and Wiki's all extend the notion of web pages. In each case, the aim is to draw the audience back, engage them, and stand out above the background noise.

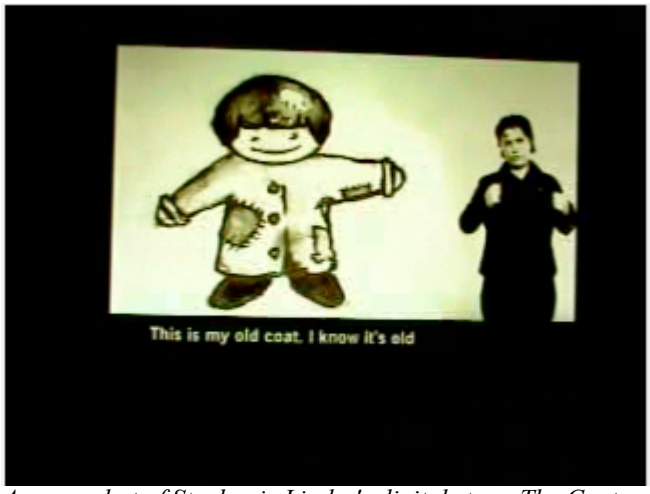
Wikipedia (http://www.wikipedia.org) defines a *blog* or *weblog* as a website for which an individual or group frequently generates content typically on a daily basis. It can be considered a type of public journal in which the individual or group records their journey through life. Blogs can be very graphic blurring the boundary between private musings and the public readership. Some bloggers use this blurring to post explicit musings as a way of retaining a voyeuristic audience similar to an explicit magazine. Engagement occurs through the frequency of updating the material. It records a journey in progress and so the reader is encouraged to return to get the latest installment. It may be considered the modern day equivalent of a serial but in this case, episodes are yet to be written rather than waiting to be published.

Wikipedia itself is an interesting example of engaging readers. Wikipedia is an example of a *Wiki*, collaborative software that publishes content and allows anyone to add new and amend existing articles. In this way, ownership is spread out to the readership and thus you have a vested interest to return, to be engaged, after all it is your postings! More importantly, you can add/increase your ownership to any article in the Wiki by exercising your ability to edit it. Recently, there has been some interesting discussion on the Link list (http://mailman.anu.edu.au/mailman/listinfo/link) regarding the authority and truth of articles on a Wiki. If anyone can edit, where does the Wiki get its authority or how do we determine the trustworthiness of a Wiki article? These attributes may lie in the domain of the Wiki editor (or editorial group). Wikipedia reserves the right to delete postings and an active editorial group exists to filter all posts.

So blogs and Wikis address engagement through either the unfolding of the journey or the ownership of the content. A different, yet highly engaging mechanism, can be found at the Australian Centre for the Moving Image's Digital Storytelling program. Stephanie Linder produced an engaging story, called The Coat, and this is on display at ACMI in the digital storytelling exhibition. The Coat is a children's tale about a

3 Personal communication, DNA researcher at the Garvan Institute, 1991.

child's coat. The interface presents it as an animated child's tale, the audio sounds like a mother reading to her child. This is in itself no more engaging that any other story-telling. What Linder has managed to do is to engage the listener by incorporating communication from the 'story-teller' to the listener using an avatar communicating through the sign language, Auslan.



A screenshot of Stephanie Linder's digital story, The Coat, from the Digital Storytelling exhibit, Australian Centre of the Moving Image, Melbourne.

In this story, Linder provides the signing story-teller in parallel with the oral story-teller. This second story-teller makes it seem that you are engaging with the primary story-teller. So powerful is this second story-teller that you end up concentrating on her and relegating the audio stream to the background. In some ways, Linder has successfully incorporated performance into her story space as the mechanism to maximise engagement.

Testimony Software

Testimony Software is the current instantiation of Events on Line, an architecture delivering parallel multiple-media to a browser application. It consists of the *Testimony Software browser* and *TLSTranscription*, an integrated authoring environment. Testimony Software is a cross-platform environment supporting authoring and display on Macintosh and Windows computers. It can deliver its media from the Internet and from local disc storage or a combination of both.

Events on Line was initially developed to test if it was possible to provide an environment supporting as many of the senses as possible. Its development was based on a longer R&D activity by the author whilst he was engaged at Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO). This R&D involved the nature and use of context in electronic publishing environments as an adjunct to knowledge acquisition and representation. It culminated in the development of Intellitext, an early electronic book environment.

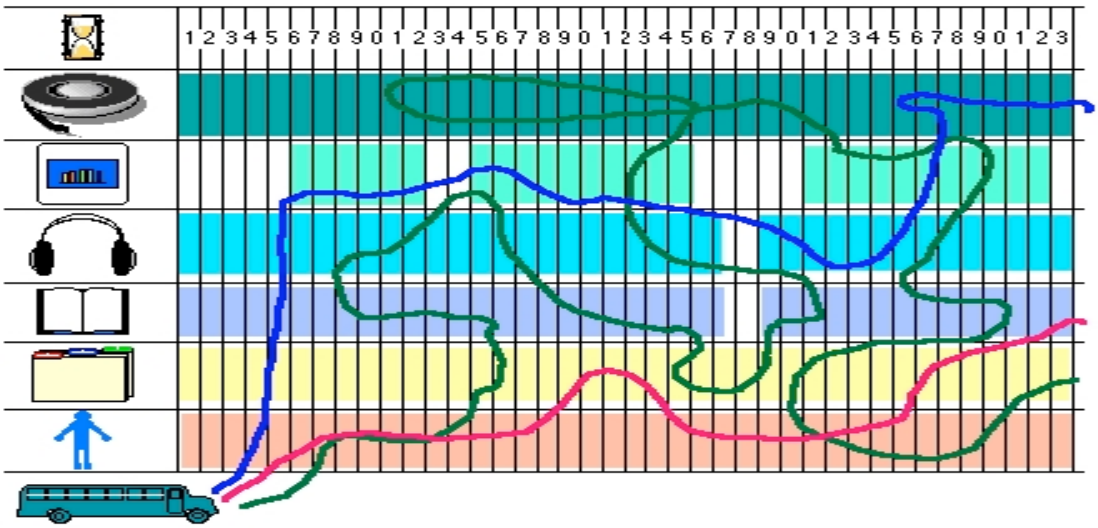


Illustration 2 Testimony Software is a set of parallel synchronised media streams through which the unser can naviogate at will

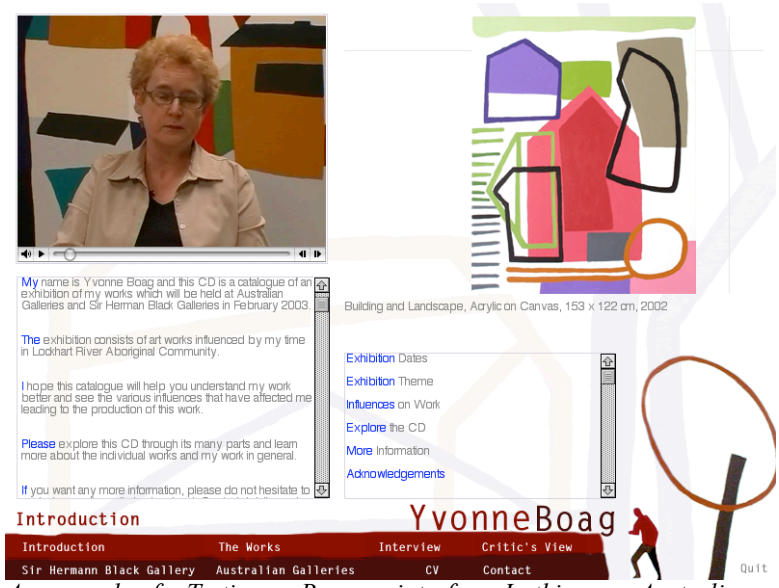
Illustration 1 The Events on Line Architecture: multiple parallel media streams through which a user can freely navigate

Intellitext enabled the author to layout their 'book' and then to provide a myriad of pathways through the space. Each pathway would be defined for a particular reason, much akin to forest trails (the scent trail, the colour trail, the high road, the low road, etc). Each place on a trail would behave in a predefined way. However, as trails crossed, and each trail represented a context, each place could behave in many ways, but only in a single way on a particular trail. As part of following a trail, a reader could override the author's intention and have a place behave in the way that suited them best. So, a story-teller could embellish their story as they saw fit but a reader could ignore that altogether if they wished: visually-impaired people could get the radio version, having the place read out to them. Intellitext (Jansen & Bray, 1993) was built using the Hypercard application and trialled on the archive of James Joyce's Finnegans Wake in conjunction with the Centre des Textes et Manuscrits Modernes in Paris, France (Jansen & Ferrer, 1997).

The Intellitext prototype showed the feasibility of providing context-aware interactivity to a story space. The contents of each place was extensible with the proviso that content the author provided could not be changed. But the reader could annotate that place, link it into different pathways and determine appropriate behaviour, even to the tune of programming their own behaviour using the HyperTalk language, if they were so skilled. In a parallel implementation, Intellitext was used as a bridge between an application program and its documentation, blurring the boundaries between the specifications and the computational implementation of those specifications. The specifications became the explanation for application function and behaviour whilst the application became the hands-on try-out environment for the specifications.

Events on Line was developed as an extension to Intellitext in response to an opportunity to provide the proceedings of a one-day conference. In this environment, the aim was to capture as much of the goings on of the event using as many media as possible and then allow a reader to re-visit any parts of the event in any order they wished. Each presentation and all question-and-answer sessions, were recorded,

transcribed, indexed and linked with their slides. A browser was developed that enabled this complex object to be replayed once a starting point was defined. We investigated several alternate interfaces, the most interesting on of which was a serendipitous interface, whereby the reader could randomly choose any starting point. As part of its commercialisation, Events on Line became Testimony Software.

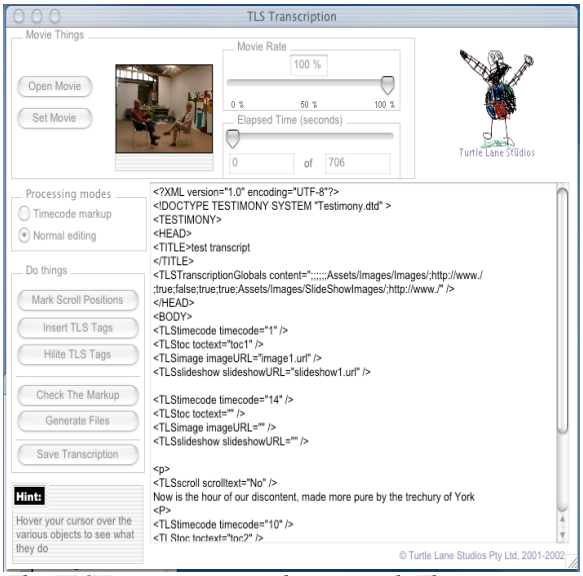


An example of a Testimony Browser interface. In this case, Australian artist, Yvonne Boag, introduces a CD of her work. Note the two text steams, a verbatim transcript and a table of contents, which remain synchronised with Yvonne's talking. The image changes at the start of every paragraph and is chosen as a visual highlighting whatever Yvonne is talking about or can be a random image from a bag of images. The hyperlinks allow the user to direct Yvonne's talk.

So any Testimony Software application involves the delivery of parallel synchronised multiple media streams to a client browser. The user interacts with those streams as they see appropriate to follow the story. Engagement comes as a result of power (the power to control the interaction) and communicating from individual (on the video stream) to individual (the user). The technology behind Testimony Software enables titles to be delivered on either the Internet or locally from CD/DVD/hard discs with no change to content (except the compression of the video stream).

The story-teller lays out their story in the way they want it told, mixing video, audio, image and textual content as they see appropriate. The user however has final say over how the story is delivered, choosing one or more media streams as appropriate to them. The Testimony Software system ensures that whatever streams are chosen, they remain synchronised throughout their presentation.

This level of control makes for a powerful environment for the user. They can match the content to their requirements, as their requirements may change visit to visit the interface remains 'new', changing visit to visit.



The TLSTranscription authoring tool. The transcript can be entered and edited as the movie plays making synchronisation simple and efficient. Extra resources can be included in the transcript, such as images, table of contents entries, etc. The process of creating this file is simply a transcribe and mark-up process. This file, once complete, can be used to automatically generate the various resources required by the Testimony Software browser.

To date, Testimony Software has been used to deliver several museum kiosks, for example, at the Laperouse Museum in Sydney, the Tenterfield School of Art Museum, and TAFE NSW – The Sydney Institute and currently one under development, at the Hyde Park Barracks Museum in Sydney. It was used at National Library of Australia to demonstrate how they could add value to their oral history collection by linking it to their visual collection. It has been used to deliver catalogues for two art events, a series of exhibitions for Australian artist Yvonne Boag, and an exchange exhibition involving the National Art School in Sydney and Hong Ik University in South Korea. It has also been used to deliver a sales presentation at the Sydney Motor Show for the Toyota Australia.

Conclusion

Telling a good story involves using all your senses to communicate the story in such a way that listeners affix their attention to whatever part of the story they wish and yet are still led along the narrative. Telling a good story is an art! Good story-tellers lead listeners along the narrative journey embellishing the story as appropriate to suit the story-telling conditions. This means that no two renditions are the same.

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replaced by 'directed listening'.

In this paper we have discussed various methods of improving on engagement in digital story telling. We described our work in developing the Testimony Software environment and showed how it supports the use of video, audio, images and text to deliver a more engaging story to the user than many existing digital techniques. We have showed how a story-teller can utilise directed listening to allow the user free reign through the story space, making for a more engaging interface, one which can be different at each rendition.

In this increasingly digital world, it is possible to tell stories as engaging and compelling as traditional story telling.

References

- Australian Broadcasting Corporation, *75 years of Radio*, http://www.abc.net.au/science/slab/2bl/cricket.htm, 1998
- Brézillon P, Alem L, Boy G, Clancey W, Dieng R, Jansen B & Vercoustre AM (eds), *Proceedings of the IJCAI'93 Workshop on Using Knowledge in its Context*, CNRS Laforia Technical Report 93/13, April 1993
- Colomb RM, Robertson J & Jansen B, *CSIRO Hypertext Research Project*, in Proceedings of the Australian Database-Information Systems Conference 1991
- Consumers Health Forum, *What do Consumers Expect from HealthInSite*, Final report to the Department of Health and Aging, May 2002.
- Dorner J, *When Readers Become End-Users: Intercourse Without Seduction*, LOGOS 4/1, 1993
- Jansen B & Bray G, *Context & Knowledge Types Vs Serendipity*, in Proceedings of the 13th International Conference Avignon'93, France, 1993, pp85-95
- Jansen B & Ferrer D, I*ntelliText: An Environment for Electronic Manuscripts*, in Intelligent Environments - Spatial Aspects of the Information Revolution, Droege P (ed), Elsevier Scientific (pub), 1997
- Jansen B & Robertson J, *Management of Wool Dark Fibre Risk Knowledge Using Hypertext*, CSIRO Division of Information Technology, Technical Report TR-FD-89-05, May 1989
- Jansen B, Colomb B, Henderson-Sellers A, Gallagher J, Robertson J & Bray G, *Printed Material as a Knowledge Representation*, in proceedings of HyperOZ'92 (invited presentation), Adelaide, 1992
- Jansen B, *The Future of the Book: Format & Technology*, in Proceedings of Book 2003 From Creator to Consumer in a Digital Age, 2003, http://ijb.cgpublisher.com/product/pub.31/prod.38
- Palmer SB, *The Semantic Web: An Introduction*, http://infomesh.net/2001/swintro/, 2001.
- Standards Australia, *Knowledge Management: A framework for succeeding in the knowledge era*, HB276-2001.
- World Wide Web Consortium, *The Semantic Web*, http://www.w3.org/2001/sw/,

2001

- World Wide Web Consortium, *Synchronized Multimedia*, http://www.w3.org/AudioVideo/, 2005