

History and Experience: Storytelling and Interaction Design

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This paper reflects on the uses of different forms of storytelling in the design and implementation of an experience prototype for a Museum exhibition about the medieval historian Jean Froissart. Concept designs developed during interdisciplinary design workshops were captured as pastiche scenarios for further discussions. Content was created using actors who recorded readings from Froissart's chronicles and then created dramatic or comic improvisations around the same stories. A prototype was developed where users set levels for different kinds of content and wore a badge which enabled the system to present a personalised selection of material. The prototype was trialled with visitors to a live Froissart exhibit at the Leeds Royal Armouries. Observations and interviews were made over a three-day period and responses were overall enthusiastic. The paper argues that understandings of story are becoming central to experience centered design.

Experience Prototypes, Storytelling, Scenarios, Pastiche, User Experience, Museum

1. INTRODUCTION

Storytelling is perhaps the oldest form of experience design. When the travelling storytellers of Ancient Arabia stood in the marketplace to tell tales which survive in the thousand and one nights they were shaping an experience for the crowds that gathered to listen. Embellishing the tales to suit particular audiences they sought to create effects of mystery, surprise, awe, wonder and beauty. Today the designers of interactive systems are almost as ambitious. Experience centred design seeks to create systems which are not just usable but fun, engaging and entertaining. For these reasons an understanding of narrative and story is important. This paper considers story telling in the development of an interactive system for a Museum exhibition. It traces storytelling in design workshops, scenario development, content creation, implementation and finally in the evaluation of the prototype. The context of this work was an exhibit at the Royal Armouries Museum about the French medieval historian Jean Froissart.

Jean Froissart's Chroniques document the Hundred Years' War between France and England. Froissart was a contemporary of Chaucer and is regarded by many as being as great a writer. His textual innovations include the first use of reported speech to convey new information and advance narrative. He based his chronicles on the accounts of the eyewitnesses he interviewed as he travelled around Europe (Ainsworth 1990). The books were

made by teams of craftsmen working under masters. One craftsman would, for example, specialize in the intricate patterns which formed the border decorations, another would be responsible for the decorated initial letters, another the illustration, another the text layout. The books then were the work of many skilled hands and they were very expensive. They were commissioned for particular members of the French or British aristocracy and the illustrations differed depending on which side the client was on (Ibid). These books would have been treasured as fabulous objects in themselves and also read aloud. One of the books was to be the centrepiece of a Froissart exhibit at the Royal Armouries Museum in Leeds. The exhibit would also contain the prototype developed by the interdisciplinary "My Exhibition" team. "My Exhibition" was a collaborative project between several universities and the Leeds Royal Armouries Museum (Rust et al 2009). It aimed to create an "experience prototype" (Bucenau 2000) that would provide content adapted to visitors individual preferences such that two people could attend the same exhibit and have different experiences.

The multi-voiced nature of the chronicles, provided an ideal design context within which to critically reflect on the role of stories in experience-centred design as both evocation of visitor experience and evidence of lived experience (Scott 1991)

2. PERSONALISATION IN CULTURAL HERITAGE

When setting up an exhibition one of the core decisions curators have to take is which perspective should be used, e.g. chronological vs. topical. Sometimes this holds for single objects too as multiple interpretations are possible, e.g. artistic, historical. Personalization allows leaving those choices open as the finalization occurs only during the individual visit. The driving principle is that the content for the narrative can be dynamically selected on the basis of the individual characteristics of the visitor and the pattern of visit and delivered to the visitor in the most appropriate form, e.g. on a PDA or a mobile phone, via text or audio. This is achieved by providing the system with a model of the user (visitor) as well as annotating the content with the same (or similar) attributes: at run time the current status of the user model is used to determine which content is the most suitable, select, compose and deliver it. This allows, for example, favouring one interpretation over another, changing the length of the narratives, providing always new content even when a person is coming back to the same exhibit .

Although the first experimentations started in computer science about twenty years ago and a number of prototypes have been tried out (see (Ardissono et al 2011) for a review), cultural heritage sites have not adopted the technology yet despite the recognizing different patterns of visit (Thompson 1996) or how tiredness changes behaviour (Falk and Dierking 1992). A model of the visit experience has identified several components: the physical, the personal, the socio-cultural context, and identity-related aspects (Falk 2009). Cultural heritage is now an important form with more people, and therefore more individuals, enjoying it. Personalization seems to be the way toward a unique museum experience. Examples are starting to appear, e.g. the Tate Gallery offers webpages and guides tailored to the needs and preferences of children, parents and teachers (Jackson and Adamson 2009). However those classes are rigid and visitors do not have the possibility of “tuning” their tour. A more individual experience is possible if techniques developed in personalisation research are used. This requires, however, solving some of the interaction issues still open, how to bootstrap personalisation, how to map content and visitors more effectively, how to evaluate an outcome that (potentially) changes for every single person.

The work presented here addresses the first: how to collect from the visitors the values needed to start up the system. Instead of asking visitors to fill long questionnaires or rate artefacts and infer what the visitor would like to see (as it is currently done (Ardissono et al 2011)), here the visitor sets the

system’s initial parameters through an engaging and humorous interface purposefully designed to elicit preferences.

3. WHAT STORIES DO IN EXPERIENCE-CENTRED DESIGN

Various approaches to communicating stories have been developed in Interaction Design, for example, vignettes (Orr 1996) scenarios (Carroll 1995) pastiche (Blythe 2004) persona (Cooper 1999) and fiction (Djajadiningrat et al 2000). In a review of evidence on the relationship between imagination and literary narrative, Mar and Oatley (2008) identify storytelling processes such as abstracting, simplifying, and compressing as fundamental to a story’s ability to engage readers in a manner that they can experience thoughts and emotions congruent with the events in the stories. There is some evidence that the most effective storytelling is suggestive rather than exhaustive, not telling the reader everything but instead using suggestion to draw readers and listeners into the world of the story and the lived experience of the characters.

Whether experience-centred design and the use of stories of experience in design is progressive or reactionary may depend on how they are used: evocatively to engage, in the way in which a novel engages; or to support explanation as the description of an event in field-notes might; as something to be read as a transparent account of immediate experience; or as an account to be interpreted, discussed, played with.

Social scientists have for some time engaged in debate about the potential and limitations of experience and stories of experience. The debate is sharpest in historiography, the study of historians and their work, where many of the unresolved tensions that exist in experience-centred design, between understanding and explanation, evidence and evocation, experience and text, are also live. These historiographical debates will be returned to in later sections of this paper.

4. “MY EXPERIENCE”

The following section describes multiple uses of storytelling in the design and implementation of an “experience prototype” (Buchenau and Suri (2000). It details the use of pastiche scenarios in illustrating concept designs which emerged from multi-disciplinary design workshops. These stories helped shape design choices but story telling was also important in the creation of content. Actors created readings of the Froissart text followed by a number of improvisations based on first person character perspectives from that story. These stories were then coded and made available

through an interface that allowed users to personalise their experience of the material.

4.1 The Exhibit

The “Chronicles of Froissart” exhibit was many years in the planning and a major event in Froissart scholarship. It was co-curated by Peter Ainsworth, a world renowned Froissart scholar at Sheffield University, and Karen Watts, a senior curator at the Royal Armouries. The exhibit was to feature illuminated manuscripts that had been photographed and made available in digital format in a collection called “virtual vellum”. But it was also to explore novel forms of interaction in the “My Exhibition” project, which aimed to allow users to personalise their experience of the material. The project was allocated a long corridor that would lead the visitor into the main exhibit.

4.2 Simpsons Scenarios

An inter-disciplinary group was set up including product designers, software engineers, filmmakers, psychologists and HCI specialists. Brainstorming activities at the first design workshop led to a number of initial ideas. The principle investigator had illustrated slides for the project proposal with slides of Bart and Lisa Simpson. The Simpsons is the longest running cartoon comedy in history. It was created by the cartoonist Matt Groening and each of the characters were based on members of his own family: Homer, the stupid, loutish but lovable Father, Marge, the cautious but caring Mother, Lisa, the activist, feminist intellectual and Maggie, the silent baby (Turner 2004). The only character not named after a Groening is the mischievous “Bart”. Homer’s exclamation upon doing something stupid “Doh!” has entered the language. Much of its humour is derived from pointing out the gulf between the world as it is supposed to be and how it actually is (ibid).

The use of Bart and Lisa in a workshop slide resonated with previous work in the project team on pastiche so it was decided to recruit the rest of the Simpsons cast to illustrate scenarios based on the workshop ideas. These scenarios were for use by the design team alone and none of the Simpsons material was ever intended to find its way into the exhibit itself. Work in museum studies (Falk and Dierking 1992) made it clear that families and school groups were the most frequent kinds of visitor to museums so the Simpsons were useful for illustrating the very different experiences that people might have in such groups.

The characters are not obvious Froissart readers or museum visitors. They are Americans who, on the face of it, are unlikely to identify with either the French or English sides in the Hundred Years’ War. The Simpsons stories provided a contrast with the seriousness and scholarship associated with

museums and Froissart, and also with the idea of stories as evidence.

The following is an example of one of the scenarios written in the style of a script for the show. Initial ideas for material involved presenting visitors with fragments of sound, music, literature and art so quotes from Shakespeare are mixed into the scenario here.

“THE SIMPSONS WALK INTO THE CORRIDOR AT THE ENTRANCE OF THE EXHIBITION. THE KIDS RUN IN, GRANDPA AND MARGE WALK MORE SLOWLY. THEY HEAR MEDIEVAL MUSIC PLAYING ON A LUTE. GRANDPA BENDS TO HEAR AND IT GETS LOUDER. HE MOVES ON AND HEARS THE SOUND OF BATTLE AND SCREAMING

GRANDPA

Reminds me of my old Victrola. Oh, it was a fine machine. With a vulcanized rubber listening tube which ya crammed in your ear. The tube would go in easier with some sort of lubricant like linseed oil or ...

MARGE MOVES QUICKLY AWAY. GRANDPA SIGHS AND WALKS SLOWLY ON. HE HEARS A VOICE AND PAUSES. AS HE BENDS TO LISTEN THE WALL GLOWS RED AND THE VOICE GETS LOUDER

VOICE

In peace there’s nothing so becomes a man, As modest, stillness, and humility, But when the blast of war blows in our ears, Stiffen the sinews, summon up the blood, Disguise fair nature with hard – favour’d rage, Then lend the eye a terrible aspect,

A MILITARY DRUM BEGINS TO POUND AND MUSIC SWELLS BEHIND THE WORDS. GRANDPA STANDS UP STRAIGHTER AND LOOKS MISTY EYED AND PATRIOTIC

VOICE

Now set the teeth, and stretch the nostril wide; Hold hard the breath, and bend up every spirit To his full height! - on, on, ye noblest English

GRANDPA

English! They’re always trying to push people around! Well nobody’s going to make ME pay taxes on my juniper bushes!

VOICE

Dishonour not your mothers; now attest That those whom yo u call’d fathers did beget you! Be copy now to men of grosser blood, And teach them how to war!

GRANDPA

I didn’t die in World War II just to be pushed around by some Victrola machine! Oh, jeeh, you’re ignorant! I’ll tell you about war! At Kitty Hawk in 1903, Charles Lindbergh flew the Wright

brother's plane fifteen miles on a thimbleful of corn oil.

Single handedly won us the Civil War, it did...."
(the Simpsons and Shakespeare)

The scenario illustrates the experience imagined in the workshop but also responses to it coloured by the visitors cultural background. Grandpa references American military conflicts with the English in response to the high rhetoric of Shakespeare.

In another scenario Bart races along barely listening to the clips as he announces that it is "Boring ... boring... no wait - dull". The sounds of someone screaming in agony gains his attention momentarily until a narrator begins to explain the historical context and he wails "Wait a minute! This is educational!" and flees the scene. Lisa on the other hand is engaged by a story of Joan of Arc though Bart distracts her as he uses another technology imagined during the workshop. This was a "video booth" where visitors could create "video stickies" to be pasted onto a display wall with reactions to the piece, as a "YouTube Visitors Book". Bart, of course, uses it to make a video of his "butt".

The pastiche scenarios were presented at later workshops and generated enthusiasm around the notion of shaping an exhibit that might be engaging for a Bart as well as a Principal Skinner.

Once the final designs were agreed another form of storytelling was employed. Sketches were made and animated in Quick Time to give a very detailed animation of how the final system would behave.

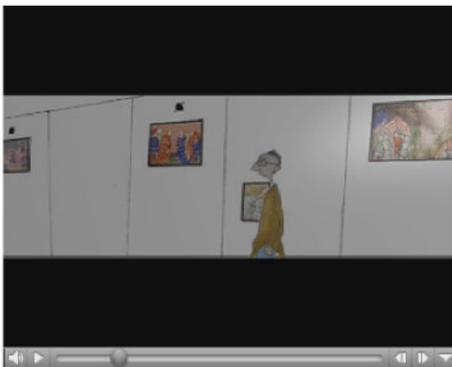


Figure 1: Quick Time Animation of Interaction Design

In the animation pictured in figure 1 the visitor walks through the corridor and as he passes particular points, images from the chronicles are illuminated and audio begins to play. This animated cartoon was another important form of storytelling in the design process. The decisions which had been reached in workshops were made more concrete in this illustrated account of what a user experience might look like.

4.3 Performing Froissart

A major element of the project was deciding upon and creating the content that would be personalized. Although the main Froissart exhibition contained a wealth of material about the period, Froissart's life and the production of the manuscripts, there were very few excerpts of the chronicles themselves. It was decided that stories from the Penguin Classic translation would be made available as a soundscape to be navigated by the visitor. As the book on display was Book One of the Chronicles (the entire un-edited history runs to some fourteen volumes) it was decided to concentrate on this text.

Recordings were made with members of a local theatre group, the York Shakespeare Project, and five professionally trained actors employed by The Royal Armouries to offer "interpretations" to visitors such as character-based monologues, mini plays, demonstrations of sword fighting, horsemanship, and so on. Actors were recorded reading chapters of the chronicles and then asked to take on the role of a character from the piece and improvise an interview with Froissart.

Many hours of recordings were made of material including readings and improvisations. The improvisations were often comic, though not always, and provided very different sorts of content. Interviews were also conducted with Peter Ainsworth and Karen Watts to provide expert commentary and technical details.

The improvisations were a fundamentally different form of storytelling. They were often comic. One of the Armouries actors, for instance, put on a Monty Python "Pepperpot" female voice to re-tell with gross exaggeration the story he had previously read with great solemnity. Many of the comic effects were obtained by subverting narrative expectations. In one improvisation for example a wife is unexpectedly very pleased when informed that her husband will not be returning from the war. Other improvisations however, were deeply emotional and concentrated on how particular scenes must have impacted on individuals, Taking on the role of a particular inhabitant of a besieged town the actors would re-tell Froissart's story from a first person perspective, embellishing and re-imagining the history to convey what the events might have felt like.

The readings, improvisations and expert commentaries from the exhibition curators were then coded in the way that ethnographic material might be coded using qualitative content analysis [32]. Broad categorizations of the material were agreed and an initial coding was then checked and modified with another coder (inter-coder agreement was high). The following categories then were applied to audio clips of varying length: horror, comedy, passion, politics, daily life, personal and

historical. The “personal” code indicated a focus on particular characters and their individual stories rather than broad movements of battle or people; the “historical” code indicated a focus on background detail such as dates, locations of battles, technical and expert commentary. Once the coding was completed a range of stories from the chronicles told in various styles were available to present to visitors according to their inclination.

4.4 Eliciting Preferences

Discussions of the scenarios had resulted in the decisions that the means of finding out about visitors should in itself be engaging and also related to the material in the exhibition. “The Gimp” an open source image manipulation program was used with iMovie to create animations of the illuminations in the Chronicles. One illustration from the chronicles, for example featured the villain Hugh Despenser tied to a ladder facing his executioner, Froissart describes how his heart and genitals are torn off and thrown into the fire. An illustration of Hugh Despenser was animated so that blood would flow from a small trickle to violent spurt and eventually a deluge which spattered the crowd (figure 2). Users controlled the amount of blood in the image by turning a dial which selected stories for horror and gore, the more blood the more horror in the audio selection.



Figure 2 The execution of Hugh Despenser Animation

The animation style was crude in Terry Gilliam’s style of animation for Monty Python, This was felt to be appropriate in particular to the comic improvisations which were generally Pythonesque. Thumbnails of each category ran along the top and left hand side of a screen and the selected category featured in the middle as the user turned a dial to set levels.

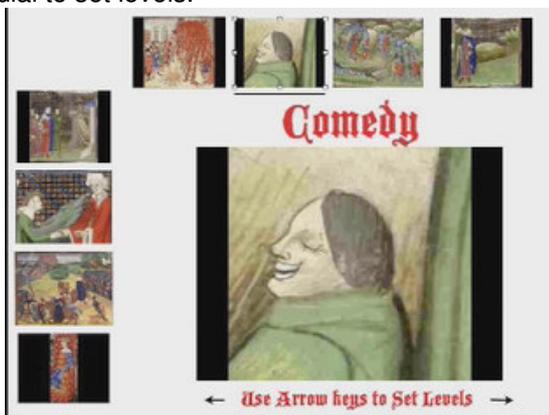


Figure 3. Interface for personalizing content

To take another example, the comedy category featured what is believed to be a representation of Froissart himself. He is animated at first to smile (fig 3), then grin, then laugh, until his head lifts and rolls off screen so that he is, as the English colloquialism has it, laughing his head off.

Once levels were set values were sent to the algorithm that would select the coded audio recordings in the database. A badge was assigned to each visitor of red or green, a camera discreetly mounted above the wall was used to identify the colour and played audio for the profile that was assigned to it. As they walked up and down the corridor a light illuminated an illustration from Froissart and personalized audio content played until they moved further along the corridor. When they stopped again they would be given more content.

5. STORIES FROM FIELDWORK

Visitors were observed and interviewed over a three-day period during school holidays, a busy time for the museum. A diverse range of visitors were interviewed including family groups with young children, young couples, middle aged couples and single elderly visitors. In all 18 visitors were interviewed. There were further interviews with four staff and the curator herself. Although the system was working most of the time for the first two days a technical problem developed on the third that meant that some visitors saw the system breaking down. However, the participants were able to see how the system should work and responded to the concept. Data was analyzed using a qualitative content analysis broadly defined by Patton as sense making which “takes a volume of qualitative material and attempts to identify core consistencies and meanings” (Zhang and Wildemuth 2009). This produced broad summaries of responses summarized in the table below and illustrated in the discussion that follows. It should be noted that the evaluation of personalization in cultural heritage is particularly challenging for two reasons: (i) individual visitors experience different narratives, so consistency across data is not guaranteed; (ii) the purpose of the visit may not be learning but pure enjoyment. Indeed the teaching mission of cultural heritage institutions has been long questioned and the emphasis is now on engaging visitors at an affective level (Dudley 2010). As such, an evaluation focused on the question ‘how much has been learned’ would not provide the answers. A conversation around ‘how much did you like it’ is much more appropriate in this case and more likely to provide useful understanding for the research to progress.

The following table is based on field notes that summarized the reactions of the participants to the piece.

	Visitor Background	Response to Interface	Response to Content
Canadian Musician in his 50s	Amateur expert on Froissart	Found the interface amusing but a little frivolous	Identified all readings from first few lines.
Married Prison Officers in their 30s with two children aged 7 and 5	Family on a day trip in Leeds to visit the armouries	The children enjoyed the interface and spent more time with that than the content	Mother was a bit wary of horrific content like Despensers execution. Father not Worried at all.
Unemployed Man in 50s	Calligraphy enthusiast	Thought this would appeal more to children.	Not particularly interested, wanted more calligraphy information
Uncle in 40s and Niece, 13	Frequently visited museums and galleries	Enjoyed the interface very much. Exclamations of "Brilliant" and laughter	Delighted by the technology, wanted more of it.
Married Couple in their 50s	Academic couple, regular gallery visitors	Much laughter at interface but confusion about certain categories.	Liked idea But thought there should be more to look at
Couple in their 20s	About to be married on weekend trip	Laughter and amusement at interface, uncertainty over meaning of "personal"	System not working but positive about concept
Australian couple in their 30s and two children aged 7 and 9	On holiday and tracing ancestors back to places of origin	Children amused by interface but could not explain what effect it might be having	System not working but positive about concept
Couple in their 30-40s	Medieval historians working in same university	Very enthusiastic and curious	System not working but very positive about concept

5.1 Interface

The interface was presented on a Mac on plinth with a dial attached to control the animation. It was found amusing and engaging by most of the participants. One visitor was a Canadian musician who was also an amateur expert on Froissart. He was amused by the animation, smiling and laughing over the gore and comedy ones. He said the thought kids would probably like this. "I asked him if it was too frivolous for him and he said no" (field notes) Children did indeed respond positively "The Dad was amused and encouraged the kids to turn the dial so that the blood spurted, the head came off and so on" (field notes) As the Simpsons

scenarios suggested the children were amused by the gore but tired quickly of the readings. Improvisations held their attention for longer but they listened to none of the audio files all the way through.

Some of the visitors found certain categories confusing, it was not clear that "personal" meant a focus on particular individuals. In this animation, soldiers on a battlefield gradually back out of the scene leaving just one standing who then rushes towards the camera in panic. Although it was not clear what it meant it was nevertheless enjoyable. Some participants offered incorrect interpretations, e.g. the "historical" category (where a king's beard gets longer and longer) was thought to refer to how far back in time the chronicle went rather than to historical detail. Karen Watts the curator was very enthusiastic laughing loudly even when she could not correctly guess the meaning. Some of the animations did not have clear start and end points and several participants suggested that a bar be added which would indicate beginnings and endings. This is an example of visitors misinterpreting the data classification, a known issue of difficult solution as data tagging is needed for personalisation to take place but an obvious association content-concept-keyword is sometimes difficult to find (Ardissono et al 2011). As the concept "historical" has been conveyed through the lengthening of beard it was even harder than usual to find an obvious mapping concept-image.

5.2 Interaction

The interaction mode in the corridor was immediately clear to all participants. Moving along the corridor to trigger sound was easily understandable. But the zones in which the different cameras operated were very close together and thus a very slight movement would trigger another audio file which was frustrating. One of the participants was wearing a red jumper and this triggered the audio files but he gamely took it off. Many participants felt that the badges used to personalize the experience had a very rough "Blue Peter" look to them. All of the participants thought that a cape or some piece of period costume would be better than a badge though one said he would feel self conscious and suggested having badges as an option.

Some of the visitors enjoyed guessing how the system worked, "As I asked his niece to put on the badge he ventured a guess as to how the system worked and got it completely right. He was clearly chuffed that he had worked it out but also very, very enthusiastic about the idea. That is brilliant, I love it- sort of comments." (field notes). They both listened to the content with evident enjoyment but were clearly more enchanted by the technology and the technological possibilities than the audio material presented.

As previously noted there were often misunderstandings about what some of the categories being altered meant: “Some people offered explanations which were incorrect but would do. [...] Because nobody went back to change the levels to hear how things would be different they assumed that what they were hearing was what they should have got” (Ibid) In this sense then it was perhaps a successful misunderstanding.

Although there were a number of usability failures and a number of outright technical breakdowns the system can be thought of as a successful experience prototype in that it conveyed clearly the idea of the kind of experience being explored. Although the system was not working for three groups of visitors the partial performance gave a clear illustration of how it would work and they could all see great potential for such a system. The Uncle and Niece for example visited galleries together regularly. They thought the technology was “brilliant” and looked forward to the day when all collections would be personalisable in this way so that they could – “get rid of the boring stuff” (Ibid). As with any experience prototype the point was not to evaluate the prototype technology itself but the potential for this kind of experiential design.

5.3 Content

The length of the audio files varied between two or three minutes and ten to fifteen minutes. This was often problematic. A Dean and his wife, had very different styles of visiting museums: The Dean described himself as a “magpie”, zipping about in exhibits as things took his fancy but said that his wife was the total opposite, methodically making her way through each item on display in order. While the field researcher interviewed the Dean his wife started listening to one of the longest readings

in the whole database. *“I felt quite sorry for her knowing that she was methodical and wouldn’t want to move on until it had finished. She went on to shorter stories, Hugh Despenser I think, and listened to those but didn’t listen to any more of them in their entirety”* (field notes). Visitors could stop or start the audio at any time simply by moving away but one implication here was that longer audio passages should not have been presented to “magpie” visitors. This may not be an issue as differences in visiting styles have been already noted and classified (Veron and Lévassieur 1983), however mapping different styles implies more work on the preparation of the content, e.g. a more chunking, and an increased complexity in the system that could introduce fragility (Ardissono et al 2011).

As with any set of improvisations some were more successful than others. The readings, though

dramatic were not new for the Froissart experts who knew the stories and too long for those with a more passing interest. The visitors spent around fifteen to thirty minutes listening to content though it should be noted that this was interrupted by conversations with the researcher.

Overall the response to the idea was enthusiastic. All of the participants agreed that such technology had enormous and exciting potential.

Although some of the content was funny improvisational material lots of it was pure Froissart. Setting the “Comedy” level to its highest point and “History” to its lowest would not guarantee that there would be no Froissart readings at all. Perhaps for this reason the system did not pass the Bart Simpson test. One family from Australia allowed their ten year old son to try it: *“the boy’s attention waned quite quickly. [...] He listened to the stories only briefly and clearly was not overly engaged by the content. His younger brother didn’t have a go at all.”* These visitors were the least engaged but even these liked (for a brief while) playing with the animation and activating content by moving through the corridor.

6. HISTORIOGRAPHY

Two medieval historians discussed the prototype at length even though it was only partially functioning. They pointed out that the way we chose to code the text made more explicit the “historiographic choices” made by any curator. Any curator must make historiographical choices about how their narratives are framed and made sense of, what is included and what excluded. The female historian was particularly concerned with the role of women in the Middle Ages and pointed out that although they are largely absent from Froissart they were not absent from the period or even the battle field, many would have followed the army providing services (e.g. prostitution) that Froissart might not want to talk about. She liked the idea of being able to take different routes through the material because this meant that the visitor didn’t have to frame the material in the same way as the curator.

The categorization of audio material was initially approached as an exercise in coding, something like the procedure that would be used in a content analysis of qualitative data. The category “Political” often referred to court intrigues and the politics of the time. But there were also stories in Froissart which illustrated very clearly Marx’s interpretation of history as class conflict. During one siege for instance soldiers tunnel into a walled city at dawn and slaughter all of the men, women and children they can find. When the knights at arms arrive they say that they hope they will be treated with the

chivalry to which their rank entitles them. The invading Knights in reply say something like – of course, my dear chap, what did you expect? They then wipe the peasant blood from their swords and go off for lunch.

The “politics” category then reflected a Marxist reading of the chronicles. The female historian pointed out that it would also have been possible to provide a Feminist reading, a strategy which might also be suggested by recent theoretical turns in HCI (Bardzell 2010). The initial coding activity then was not solely based in traditions of qualitative data analysis, it was also a form of literary criticism.

7. HISTORY AND EXPERIENCE

According to Thompson (1996) Teows (1987) Zammitto (2000), and others, the critical potential of bottom-up histories is in the subversive specificity of particular, often silenced, experience (e.g. working class, female, gay, black); people telling their stories of their experience as a bulwark against the deterministic, silencing tendencies of structural top-down accounts; people having their voices heard; people who might otherwise be excluded from history being included. Others have argued that such a reliance on experience, particularly people’s stories of their immediate experience, as evidence, is conservative and weakens the critical edge provided by explanation of how structures and ideologies produce experiencing subjects (e.g. Scott 1991). They argue that focusing on individual experience to develop explanations takes attention away from the political, social, and ideological processes that produced those experiences.

Joan Scott (1991) a leading figure in critical history, argues that experience can be a reactionary concept that supports hegemony and orthodoxy. Scott’s main concern is with the use of direct, unmediated experience, the idea that when a person tells the story of their experience it ought to be taken at face value as evidence of life as lived by them. For a historian interested in such processes, are experience and stories of experience, of value? And, if so, of what value?

Scott suggests that documenting people’s experiences and using them to construct understanding can broaden the scope of people, events, and situations considered in any account. She also notes that it often corrects oversights that have or could be created by limited or skewed perception, for example, the exclusion of women, ordinary soldiers, or very poor people from social or political history. This connects quite directly with the comment of the medieval historians who engaged with the experience

prototype. Different takes on archival material such as the improvisations of the actors in this project might help to indicate absences in texts, suppressed histories, the women who followed the armies throughout their campaigns who are almost never mentioned by Froissart.

In response to the concerns about experience that she had identified, Scott argued for a discursive approach to History that would make use of critical tools such as deconstruction, gender critique, and Foucauldian analysis to critically examine subject and identity construction and their place in constructing experience. The problem with this move is that experience – together with the benefits it offers – becomes subjugated to theory again: language all the way down replacing experience all the way down.

Accepting many of the points that Scott made about the use of experience, the historian Martin Jay (2000) in *Songs of Experience*, following an insightful history of ideas about experience, reached a different conclusion. Aware of the problem with any notion of immediate experience, experience free from discourse, and at the same time concerned, as we are, about the potential to throw over the benefits of an experience-centred perspective, he suggests that:

“... it might be better to think of [experience] as the site of a productive struggle between all of these contesting impulses or demands?, the place in our lives in which neither binary dualisms nor reductive monisms rule out the experimental moment in living” [19, p.404].

As Jay makes clear, the critical potential of an experience-centred perspective is won in working at the site of the struggle between contesting demand and resisting any reduction, be it discursive or subjective. Some forms of storytelling emphasise multiple accounts and voices, others subdue them. The table summarising responses in the previous section is very different in form to the field notes reported afterwards. These very subjective notes make indicate that evaluation itself a form of storytelling. The table may appear less subjective than the notes but both are a form of narrative.

Bakhtin’s notion of “monological” and “dialogical” forms are helpful here. For Bakhtin a monological utterance expects no answer. For instance, the order “Charge!” on a battlefield anticipates action, not debate. For Bakhtin the narrative procedure in the novels of Tolstoy is also monological. The narrator of *Anna Karenina* for example knows everything: the most intimate thoughts and actions of every character. How he knows and whether he is right is not at stake. In Dostoevsky on the other hand the procedure is dialogical. The narrator is unreliable, in *Notes from the Underground* he constantly tries to anticipate and guess the reader’s

sceptical responses to what he is saying. Even where a neutral narrative voice begins the novel with omnipresent authority, as in the Brothers Karamzov, later it is revealed that this voice too belongs to a character with a partial perspective and sources which might or might not be reliable. For this reason Bakhtin characterised Doestoevskys' work as polyvocal (Bakhtin 1984). It would have been possible in this paper to focus solely on the technical difficulties which caused the prototype to fail on the third day of deployment. This could have been written with a focus on software engineering and would have been a story of failure. But the failure of the system did not prevent participants from engaging with the experience that the prototype attempted to evoke. Indeed some of the most intense and enthusiastic speculation around future possibilities occurred when the prototype was not working at all. In this sense the prototype could be regarded either as a successful experience prototype or a technical failure. Like any form of narrative, conference papers also emphasise certain points of a story and downplay others. The findings here are presented as stories from field notes. Rather than present a final evaluation we emphasise multiple responses and interpretations of the prototype.

8. CONCLUSION

This paper has considered the role of story in both the design, implementation and evaluation of an experience prototype. The value of the pastiche scenarios was not in realist claims about how real users might react to particular designs but in engaging a multi disciplinary design team. Realistic accounts of history read from Froissart were also contrasted with fictional comic and dramatic improvisations. Although there were technical problems with implementation the responses to the prototype indicated the potential for personalization not only to engage museum visitors according to their preferences but to make explicit historiographical choices.

The politics of representation are implicit in any museum exhibit, the ways in which particular historical periods and struggles are presented are inherently ideological (Lidchi 1997). Froissart's chronicles can be read as romantic accounts of chivalry and the exploits of the classes appointed by God to rule. Or they can be seen as brutal illustrations of Marx's dictum that "the history of all existing society is a history of class struggle". Interactive technology may allow space for multiple perspectives and historiographies. They might allow for both large scale structural accounts of the broad sweep of history but also create a space for experience and the individual.

As interaction design becomes more concerned with values, affect and aesthetics it is becoming

clear that there must be a deeper engagement with story.

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