Spinning Stories: The Development of the Small Histories Project as an Online Facilitator of Multiple Life Stories

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ABSTRACT
This paper focuses on the Small Histories research project, a multi-user, database-powered online system for the uploading, storage, display and juxtaposition of multiple individuals' life histories. It discusses issues encountered in the project's initial interface design and testing stage, particularly around the display of users' stories, use of metadata and choices of web technologies. The paper also explores broader issues connected with the creation of narratives via the Small Histories system.

Keywords
Web 2.0, social software, social networking, Internet narrative, online narrative, narrative research, hypertext, cybertext

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Primary Classification: D. Software; D.0 General
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INTRODUCTION

The tumultuous historical events of the last century have created massive dislocation and change, creating and shaping millions of life histories.

These 'small histories' or personal narratives offer valuable perspectives on the big events of our times and on the histories of others also connected to the same events, places or times. Such narratives are important ways of passing on a range of social knowledge because they provide "a bridge between the tacit and the explicit, allowing tacit social knowledge to be demonstrated and learned, without the need to propositionalize it" (Linde 2001, p. 1),

The Small Histories project, which was spawned by the desire to tell my own family story, aims to facilitate this process through an online, user-driven database-powered system dedicated to displaying and juxtaposing multiple personal life stories. In doing so, however, the project will achieve an additional purpose: that of a self-generating archive of personal stories.

Registered Small Histories users upload items – text, images, video, audio, documents – and keep them in a personal online repository. Once items have been uploaded, users can create narratives by ordering their choice of items and displaying them in pre-selected formats. These narratives then become available for viewing on a public website. Viewers of narratives are not able to alter the order or structure of stories in the current prototype (though this may change as the project develops), but they can make comments on them; these comments appear in the margins of the web page.

The project's aim is to create an online environment where stories are not only created, but also collected, told, compared and disseminated via Internet keyword searches, planned RSS feeds, links from related websites, blogs and the like. It seeks to employ the principles of user-driven social software to resolve issues connected with knowledge management and archiving such as the collection of material and the retrieval and dissemination of archived knowledge. (Linde 2001, p. 8, 13-14).

The Small Histories project adds one further element or rule to the narrative creation process: those wanting to create a narrative must also include at least one item in their narrative that has been uploaded by another registered user. This is to ensure that links *across* narratives are maintained; that the site grows as a web of interconnected elements rather than a collection of isolated silos of data.

THE SEEDS OF THE PROJECT

The Small Histories project arose out of personal autobiographical experience. In 1997 I traced my biological Israeli father and lived in Israel for most of the next year, getting to know him, his family and the region. When I returned to Australia in 1998 I began to turn that event, and the events leading up to it and resulting from it, into a book. That book then morphed into an online hypertext narrative after I concluded that the events could only be presented within multiple different contexts or viewpoints. This became particularly apparent after I started to more fully explore the history of my mother's (non-Jewish) German

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family, and, as a result, the juxtapositions between my two family histories.

As time went on, however, my views on the project's themes changed as I changed and world events came and went; for instance I found my views and reactions adjusting to every new turn in the Middle East conflict. I then realised that I needed to reflect these changes in my project but that 'closed' memoirs in books and on the web are locked in time and do not change with their authors. They are also, I observed, locked in another bubble – that of point of view. The closed personal story may discuss an event of wider significance and interest, but is often self-referential; it does not tend to invite complementary or clashing viewpoints on the same events that could provide readers/viewers with increased depth of context and meaning.

This observation coincided with the growth of multi-user systems on the web in the early 2000s, and led to the initial development of the Small Histories site.

THE SMALL HISTORIES WEBSITE

The current Small Histories site is unremarkable in its technical implementation. It works the way a lot of other data sharing sites do, via a database and scripting languages. The current, first prototype employs an Access database and Cold Fusion scripting for rapid prototyping. It is currently being recoded in MySQL/PHP, which, it is hoped, will spur further development, possibly by incorporating other available PHP Open Source software such as family tree creators. The final product will be itself released to the Internet as Open Source software to be downloaded, used, refined and adapted at will.

Users log in to the following administrative interface:

Figure 1 - Small Histories: administration entry page

They then upload items of text, images, audio, video or other documents, adding metadata (place, year, description etc) as they do so:

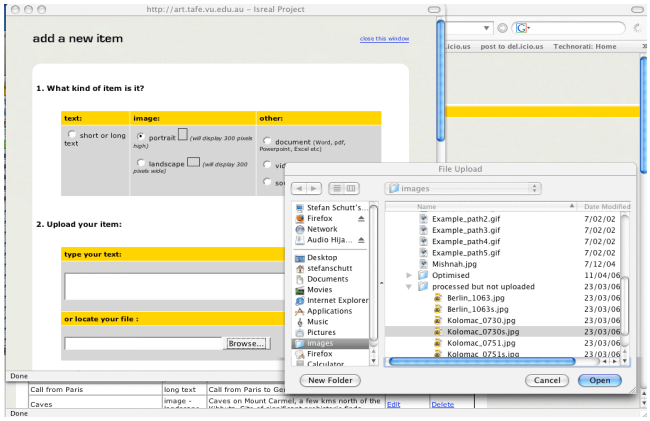

Figure 2 - Small Histories: uploading items

Users then order these items – plus their choice of items uploaded by other Small History users - into a sequence to create a story: This story, and the items that make up that story, can be edited at any time:

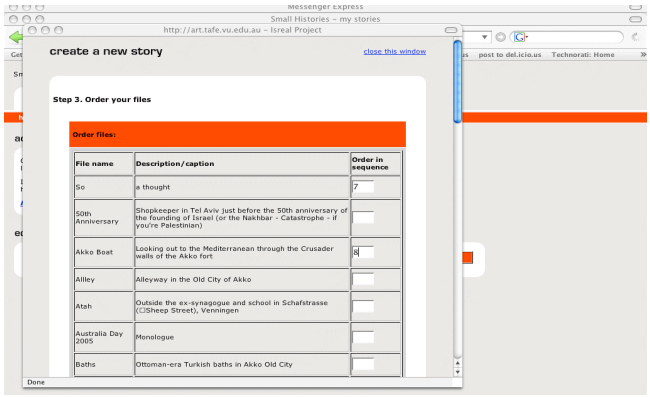

Figure 3 - Small Histories: ordering items

The resulting story is then presented in one of a range of formats on the web for others to view. In the current site model, story creators choose to display their stories as a scrolling gallery of images running across the page, a story with text, images and other items running down the page or a 'scrapbook' where items are layered on the screen (this is still being built):

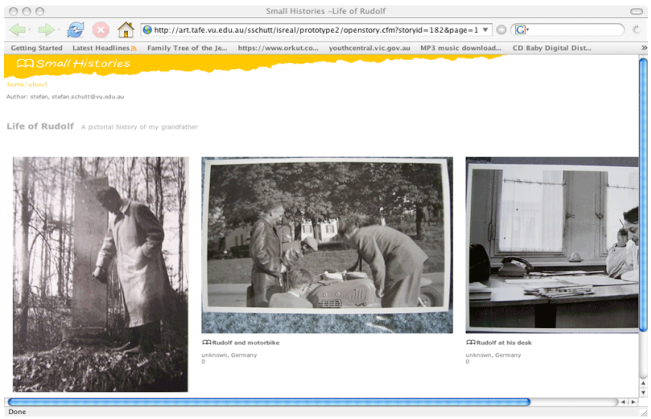

Figure 4 - Small Histories: gallery format

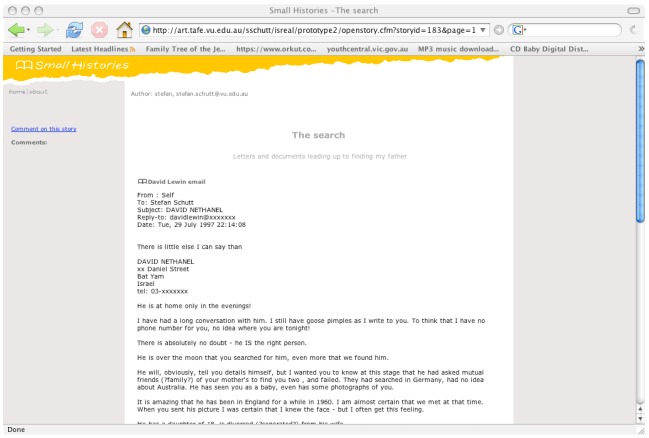

Figure 5 - Small Histories: narrative format

The screen shots above are examples of the publicly accessible web pages associated with every completed narrative. These can be accessed via the Small Histories public homepage:

Figure 6 - Small Histories: public page

Within narrative web pages, every item name is a link that, when clicked, brings up a popup window with details of the other stories that the item is associated with, plus other details:

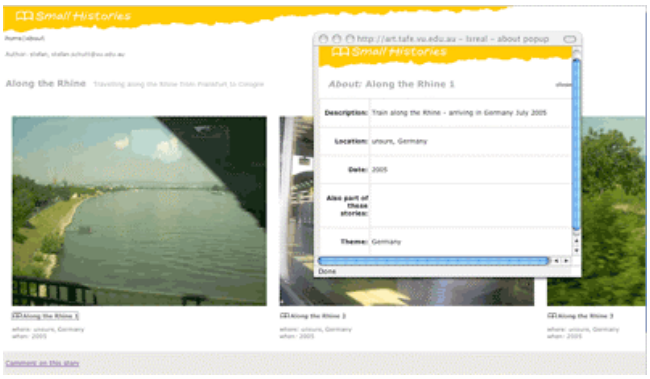

Figure 6 - Small Histories: 'about' popup window

Future prototypes will experiment with more visually sophisticated ways of presenting this information, one option being a dynamically generated 'map' representing all items and links between them as 'towns' and 'roads' that connect them. Similarly, I will experiment with ways of displaying people's stories on the public site, including the relationships between stories. A benefit in working with databases is that the presentation layer is separate from the data layer so this kind of experimentation can be undertaken without affecting the data itself.

At the bottom or sides of the story pages, a "make a comment" link encourages users to comment on items and stories in a way that is similar to the comments areas connected to news reports on Internet news sites. The comments are then displayed around the core story to provide ongoing and evolving dialogue.

Another requirement built into the site is that story creators need to include at least one item in their stories that already exists in the database and has not been uploaded by them. It is intended to force the establishment of the kind of 'weak links' that Granovetter (1986) established as providing crucial bridges between clusters of nodes, thereby facilitating the creation of a network of items and stories with a small 'degree of separation' across the network. Not many of these bridges are needed, as network physicist Albert-László Barabási's (2002) observes:

*It requires **only one link** per node to stay connected...If nodes have less than one connection on average, then our network breaks into tiny noncommunicating clusters. If there is more than one connection per node, that danger becomes remote.* (Pg 18)

A further focus of my research is the mechanics of the website system and how changes to this will affect the development of the narratives and people's interactions with these narratives. As the project progresses I will experiment with system variables (user interface elements including uploading rules, content display models, editorial intervention, automated processes) within the framework of Espen Aarseth's Cybertext (1997) typology of: *Dynamics; Determinability; Transiency; Perspective; Access; Linking and User Function.* I will then gather user feedback to see how these variables affect the experience of the site for users.

With the emergence of peer-driven online systems and distribution technologies like RSS and tagging, new options have arisen for the sharing of information. The Small Histories site already encompasses tag-like user-created classification of contact via its 'Themes" metadata option, and RSS feeds are planned for the next prototype. It is hoped these features will serve as point of online gathering for a community interested in personal stories, a process Dave Snowden describes as "swarming", or "creating the equivalent of a bright light and seeing what comes to it" (2002, p. 20)

The site marks the beginning point of a study that I suspect will take years. In fact it may continue without end as an evolving, ongoing project.

MAKING MEANING THROUGH ORDERING

Many core elements of the Small Histories website are similar to other upload websites such as Flickr (www.flickr.com) or YouTube (www.youtube.com) in that users upload and share items with others via a public interface. The difference, however, is the explicit aim of the Small Histories site: to facilitate the creation of sequential narratives through the uploading and ordering of media items. Existing upload sites are sometimes used in creative ways to create narratives that emerge over time through the staggered posting of episodic items (such as the Lonelygirl15 series of videos posted to YouTube), but the presentation of ordered elements in narrative form is not usually part of these sites' overt design or functionality.

The concept of *ordering to create meaning* implies that narrative is a journey from one point to another (or others), a sequential, time-based course of action: in other words, a *process*. This understanding of narrative is implicit in the idea of *story*: the Oxford Dictionary of English defines narrative thus, as: *a spoken or written account of connected events; a story*. Linde (2001, p.4) describes narrative as "a representation of past events in any medium", a definition that also suggests time-based ordering of information.

Indeed some commentators have seen the development of sequential narrative as a major milestone in the development of writing and culture; writing is described as evolving from pictographs representing objects to more abstract sequential marks capable of describing abstract human experience. Ricardo (1998) describes it thus: "Narrative begins when signification is defined more in terms of sequences than commodities", and frames this as the second of three epochs in the development of writing. (p. 2)

The principle of sequencing elements into a time-based narrative is not something that just concerns writing. For new media theorist Lev Manovich this form of narrative is, in Rune Daalgard's words (2003), the "dominant cultural form of print and cinema" (p. 5). The principle of time-based ordering is also at the heart of musical production processes such as the ordering of movements into a symphony, the combining of verses, choruses and bridges to create songs, or the appropriation and ordering of sounds and samples to construct new musical tracks via the use of a device known, aptly, as a *sequencer*.

The Internet, when combined with databases and scripting technology, positively lends itself to meaning making through ordering. One playful example of this is the Flash website *Bubblr*[1] (http://www.pimpampum.net/bubblr) This site automatically downloads photos from the *Flickr* photo sharing site based on the *Bubblr* user's search terms, then lets the user turn the photos into comic strips by letting users order the photos and add speech bubbles.

This kind of processing is what databases do well, particularly the relational databases used in online systems – the storage and retrieval of items and the creation and mapping of relationships between those items. This makes the database an eminently suitable vehicle for the creation of user-created narratives. And, furthermore, because the Web is a distribution medium *par excellence*, as well as an increasingly sophisticated 'front end' for the uploading, retrieval and display of data stored in databases, the dissemination and juxtaposition of narratives uploaded by many people now becomes possible. It also offers the advantage of open-endedness: narratives can change over time, be edited, added to and rearranged.

For designers of interactive online systems the use of databases also allows for open-ended evolution of these systems as designers find out how users interact with them. Content is stored in the database, and/or added to by users, and is entirely separate from its presentation. This principle facilitates the development of systems of representation, ordering and collection that evolve over time: you can change the interface that presents the data, the ways data is collected from users and other functionality without affecting the underlying data itself. This is significant in the context of "the importance of vague, contradictory and incomplete representations in the early stage of writing or design problems" (Qu & Furnas 2005, p. 1). Databases let designers experiment and respond to feedback by users in an evolving way rather than locking down design solutions at the outset.

BEYOND THE SEQUENTIAL

Sequential ordering, however, is not the only way to create a narrative. Narrative can also be generated from the juxtaposition or association of items in a simultaneous or space-based form such as collage or photomontage. The spatial aspects of narrative creation and display, and their potential to generate new meanings, through the juxtaposition of items in a space, are also possible in web-based narratives. The Web is a visual as well as textual medium and is becoming ever more sophisticated in its ability to display visual information. At the very least, the level of the interface needs to be considered closely since this will play a large part in how the narrative is structured for presentation to the viewer/reader.

In fact it is in the interplay between space-based and time-based elements that some narratives gain their power. One pre-Internet example is frequently quoted as an ancestor or parallel to hypertexts: the Talmud (Porush, viewed 2006). At the heart of the Talmud is the Mishnah, the first recording of the oral law of the Jewish people. The printed Talmud arranges text visually on a page, creating a narrative of layered conversation and debate about Biblical passages. Within the Talmud's pages the core Oral Law text holds court in the centre of the page while the commentaries by Rabbinical scholars through the ages gather around it; the result is a narrative of proposition and response, an inter-generational dialogue of sorts.

The Talmud's use of the visual and associative along with the sequential has created a space for the kind of "argumentative uncertainty in the exposition" that some hypertext enthusiasts of the 1990s saw as excluded from the Western, Hellenistic tradition of discourse (Ricardo 1998,

p.3). These writers saw hypertext as the next advance in the development of writing in its apparent potential to break the stranglehold of control that sequential argument represented so that voices other than that of the author's could be embraced.

However the hypertext enthusiasts tended to see hypertext on the rhizome-like web as *replacing* sequential, linear, author-controlled text, insisting that readers would of necessity leave behind their attachment to the sequential. The model that the Talmud offers instead is a blending of both modes, with commentary, debate and comparison revolving around core, sequential Biblical text that forms the 'spine' of the narrative.

In his paper *When Hypertext Became Uncool*, Henning Ziegler (2002) defines the reading experience as 'strategically building many contradictive voices of a text into a mental whole' (p.1) Ziegler observes that, while reading Stuart Moulthroup's *Victory Garden* hypertext, this escaped him; he could not arrive at 'a mental model of the digital rhizome', the text 'stays fluid' and because his reading was only 'one among many' he felt distanced from the text and other readers (p.1). This, Ziegler states, is an explanation for why, instead of the renewal of writing promised by the hypertext evangelists of the early 1990s, hypertext failed to live up to the hype. Hypertext did not, as claimed, engage readers by mirroring the processes of the post-modern associative mind. Instead it only served to thwart the reader's 'desire for intimacy' (p.3), a term that recalls Lejeune's idea of an 'autobiographical pact' between writers of autobiographical material and their readers (Lejeune, 1989).

I propose that, in Small Histories – a system designed to be used by a large number of people with different levels of technical and narrative expertise - a blended approach of the sequential and associative provides the most useful approach. On one hand, this provides a sense of authority and continuity that I believe remains important to people writing or viewing autobiographical narratives, especially on the Internet, while its ability to facilitate active input from others, and to display associated items in a space, open up possibilities for active engagement by others, and recognizes the concept of knowledge as both a *thing* and a *flow* (Snowden 2002, p. 5).

LEVELS OF CONTROL

The variable of *authorial control over the narrative* will be the subject of experimentation and testing in this project. A range of models currently exist on the Internet for blending authorial control with active input from users; one can imagine a sliding scale with exclusive authorial control at one end and free-for-all user input at the other. With the recent explosion in dynamically-powered "social software" websites designed to facilitate social interaction and sharing, a large variety of multi-user interaction models now exist – from the lightly moderated, editable multi-user environment of Wikipedia to personal weblogs that allow the posting of comments from non-authors about author-created posts, but not much else. Where any dynamic website system sits on the scale depends on what the system aims to do and therefore how it is set up in terms of allowing users to annotate, add or change core content.

In its current implementation, the Small Histories project is, visually at least, Talmud-like in that visitors to the public site can make comments that appear at the peripheries of the core text created by registered users. This is deliberate, for my initial assumption is that for authors to be enticed to upload and create their personal stories, they will need to feel 'safe' in that their stories cannot be altered by others. In other words, the project currently assumes the desirability of some control by authors, though this may change. The project also assumes that most readers seek a sense of stability in the stories they are reading, especially those presented as factual autobiographical narratives. This ties in with Lejeune's concept of an unspoken contract between the writer, the subject being narrated and the reader, an 'autobiographical pact' that implies a relationship of trust, reliability and continuity (Lejeune 1989).

THE ROLE OF THE INTERFACE

The Internet offers us the potential for undertaking the visual delivery of narrative in forms more varied and engaging than that of the printed page. But with opportunities come complexities, since creators of Internet narratives "work in relatively uncharted territory" in terms of narrative structure and conventions (Douglas and Hargadon 2000, p.1), as well as in terms of the familiarity of the interface: books tend to work the same way, many websites do not, although some conventions, such as left-hand navigation bars, have emerged over the last decade.

A browser screen is like the page of a book in that it presents a defined area of visual 'real estate' for the dissemination of information, and is often viewed as part of a sequential series of screens. One difference however is that browser windows have the ability to scroll down and across – a feature that can be used in creative ways, although many interface designers and usability experts would frown at the extensive use of the scrolling function (Neilsen 2005) In particular the Internet offers expanded possibilities in its ability to accommodate rich visual, audio and other content, and through its linking function which allows for supplementary content display techniques such as pop up windows or the display of contextual information. This provides creators with new possibilities for revealing narrative elements.

In constructing the evolving mechanism and related interfaces for Small Histories, I am considering two aspects: the narrative creation process, and how the narratives are to be displayed to the world. Both aspects have necessitated thinking about the technology and the role of the user, often in conjunction with one another. This is especially the case in Small Histories because it aims to be accessible to, and usable by, a wide range of people with varying computer skills and equipment.

Qu and Furnas (2005, p. 4) point out that the web is not just a source of "bags of facts" for people seeking out information, but also a source of models for how those facts might be organised. In developing the public interface of Small Histories, I intend to provide a number of models through the use of database search queries including thematic, date-based and author-based queries. These days we are increasingly familiar with such flexibility of data presentation (think of tagging and how we order our emails by author, date or subject) and it will be interesting to see how people respond to this in regard to biographical stories.

When developing the first prototype of Small Histories I took into consideration a number of factors including instructional design principles and the nature and limitations of the technology I am working with (as well as my degree of expertise in it). The current site, with its boxes and submit buttons, is what might be called an older, 'Web 1.0' implementation. Newer implementation of web technologies such as AJAX may well provide new ways of approaching this in future prototypes, such as the ability to drag and drop items into an order.

Some design principles have been incorporated from popular 'Web 2.0' social software sites, such as the use of tabs, color coding and clear, simplified instructions to help users through the upload and narrative creation process. Because the system must work for as many people as possible, I have not, as yet, opted to create a Flash-based interface, since users currently still need to have installed a reasonably recent version of the Flash player able to connect to databases.

In regard to the display of narratives, I considered aspects of user interface design as they relate to audience immersion and engagement. Immersion is a reading pleasure that Douglas and Hargadon (2000, p.2) define as arising out of "the lack of demands the act of reading…places on us"; engagement is more actively exploratory, less guided and preferred more "by those who are widely read, since they have access to a vast array of schemas and scripts". I looked at how Internet audiences currently create and look at online personal stories and travelogues. The stories I found had largely had simple interfaces that tended to promote the more passive pleasure of immersion, with content (predominantly text and images) scrolling down the page. Image galleries tended to scroll across the page. I decided to maintain this in the first iteration of the site and gather feedback from users on the effectiveness of this type of design.

TRUTH, THE WEB AND THE PERSONAL STORY

Narrative researcher Maria Tamboukou (2005, p.6) argues that narratives always emerge from a context, that in the production of autobiographical narratives, "power and desire dance together in the production of narratives". Tamboukou points out that personal experiences are not indisputable, that autobiography is an unreliable form of truth. This point is reinforced by Vivian Gornick in her penetrating essay on memoir (Gornick 2001), in which she observes that autobiographers create a persona that is 'them and not them', a unifying entity that brings order and clarity to the narrative (p.3). When writing we "become-other, becoming of that of which we write and think" (Probyn 1996, quoted in Tamboukou 2005, p. 24). It is interesting that the basis for Lejeune's 'autobiographical pact' between the author and reader may be partly based on an illusion; the illusion of continuity, believability, trust and reliability.

The Small Histories project seeks to provide a mechanism or process for this creation of the autobiographical persona, as well as for drawing out points of comparison for stories created by different personas. What is hoped is that new spaces for exploration will emerge as different versions of events, places and times sit alongside each other, with personas/authors reconstructing their particular pasts and truths since "the autobiographical I is at home in both history and narrative because it is produced by the action that draws those fields together". (Gilmore 1995, p.86, quoted in Tamboukou, p. 22). As Charlotte Linde (2001, p.5) states, stories do not just recall past events: they also reveal the moral attitude of the speaker towards these events, often in subtle ways such as the use of a particular word or phrase. It is planned that the Small Histories site will compare truths by juxtaposing different versions of personal experience or different subjectivities relating to historical events, places or times. The big interaction design challenge for Small Histories here is: how can you present the relationships between stories on a screen in a way that makes sense to viewers and allows them to effectively explore narrative relationships and juxtapositions.

These relationships will include matters relating to individual and group identity, defined by Linde as "individual social knowledge" that "is most frequently and best conveyed through narrative", often, in the case of oral stories, in a group-based or participatory manner that allows the hearer to also have a stake in the creation of the story (p.5). The initial Small Histories story creation process is not group-based in the sense of oral stories, but subsequent processes such as the creation of comments do allow for a degree of buy-in by users. It should also be noted that telling stories on and to the Internet is not subject, as oral stories are, to the phenomenon of "recipient design" (Sacks 1992, quoted in Linde 2001, p.8) where the story is tailored in every telling to a specific recipient or situation. Story creators who use the web know they are telling their story to an unspecified audience of dozens up to possibly even millions. Does this qualify as conforming to Linde's evaluation of narrative as "fundamentally social" (2001, p. 12)? Are users of such systems akin to memoir writers? Novelists? Are they creators of monologues or dialogues? This is something I will explore through ongoing interactions with contributors to the site.

It is important to note at his point that the technical aspects of story creation will create their own particular kinds of narrative outcomes. The look and feel of the site tools, as well as the processes or mechanisms for uploading and displaying, will create their own dynamic, and will influence the ways that experience is constructed and conveyed. The design-based research project Cultural Probes (Gaver, Dunne

and Pacenti 1999, p. 23) emphasizes the importance of the tone and style of the medium in the elicitation of information: its level of formality, friendliness and intimacy. Web forms, for instance, may result in one type of story whereas "drag and drop" style interactivity may produce a different kind. Then there is the tone created by the Internet as an overarching medium in itself; some have seen online communities as fostering the return of some aspects of oral culture, such as its conversationality and directness (Snowden 1999). The Cultural Probes project also uses "tactics of ambiguity, absurdity, and mystery throughout, as a way of provoking new perspectives on everyday life" (p. 26). This approach could spark an intriguing 'next stage' for the Small Histories – that of active intervention in the story creation process through the insertion of material designed to generate lateral responses – though one would need to carefully think about issues of trust and expectation that may arise here.

CONCLUSION

Meaning is created when nodes of information are linked in new ways, when connections are drawn between nodes and new networka are formed. The Small Histories project hopes to provide ways for personal stories and their constituent items to be collected and published on the Internet, then for those stories to be connected and compared. Within Small Histories this will occur both consciously through the story creation process and automatically through associations made through shared nodes (story items) and metadata such as place and theme.

On a wider scale, the Internet will itself act as a point of node connection as users discover others' personal stories on Small Histories through web searches, forum posts and the like. I have experienced this myself a number of times during the course of my research. For instance a recent Google search on my grandmother's name led me to two sites that provided valuable information on her family's Pomeranian life during World War II: a BBC oral history site and the memoirs of a family friend posted to the Internet by his grandson.

As a medium, the combination of the Internet, dynamic scripting technologies and databases are ideal for a project like Small Histories. This combination simultaneously opens doors for user interaction and processing such as story creation and ordering, archiving and comparison of data through the use of relational databases, automated publishing to a worldwide audience, and distribution of the published outcome via web links, searches and feeds.

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