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Storyfox: A Design Proposal for Self-Reflective Storytelling

Introduction

We are all digital storytellers, historians and autobiographers of our own lives, and for millions, Gmail is one of the primary tools we use every day to record the bits and bytes of our narrative life. Thus, if we are all digital storytellers, how does a narrative worldview change the way we see and use Gmail, and how does Gmail change our narrative impression of ourselves and our lives? Narratives are important. They order our lives. Narratives allow us to arrange the complex entanglements of people, places and action and time into a coherent and manageable packet of information. Narratives allow us to analyze and evaluate our experience. We can understand the significance of an event or person by their role in the story we tell or are told. Narratives are not just personal. They can have profound social effects, too. This is because stories guide our decision making. If I tell you a story about a professor who is very mean, you might not take his class. Of course, I might be completely wrong about the professor. Whether you take the course or not, my story becomes part of your story of your semester, and if you tell someone else, and that person emails me about the professor then the Gmail narrative circles back around. Time, too, is crucial because you might not fully appreciate the accuracy of my story at first, or you may find that at the end of the semester, I am the one who is mean and wrong. As time moves, we think differently not just about stories as a whole but also about the various smaller story elements that make up your semester narrative. It is these traditional narrative elements, (narrator, plot, setting etc.) that interest me. But it is *not* fixed text that I want to study. This paper is more concerned with emerging narratives, or maybe it is more accurate to say the dynamic emergence of story elements in digital places. What happens to traditional storytelling elements when they are born, archived and sometimes die in powerful narrative platforms, such as Gmail? Put another way, what is the influence of Gmail upon the raw materials that we use to make up the story of ourselves? It is not the building I am interested in but the brick and steel and concrete as they flow into the construction site, and little by little, become stuck together in various ways and at various times, and at anytime—the blueprints (code) may change. Finally, and most importantly for this paper, how can we encourage and help people explore their digital archives by harnessing the power of narrative? This paper puts forth a design concept called *Storyfox* that attempts to build the foundation for answering this question.

Why is this Important?

It is critical to examine and articulate how technology is changing one of the oldest most important human practices because the stories we tell ourselves, about ourselves and others are what shape our lives and realities. This is a critical time because never before has the historical record been so complete. People that, arguably, would never write daily letters now transmit volumes of email each week, around the globe. Critically, these emails can be and many times find themselves *archived*. Google, particularly Gmail, is becoming an operating system itself. I argue that Gmail is a new kind of storytelling platform upon which we are building and storing the various audio, visual and textual elements that make up our life stories.

Why Gmail?

I have chosen Gmail because it is not only one of the most popular email services, but it is also, arguably, the most feature rich and robust. Gmail's interface is tightly integrated with Google's instant messenger (IM) service called Google Talk, Google Calendar, Google Docs and so forth. So, when I say Gmail I mean the *whole interface*, not just the email service. Its tight coupling of email and IM makes Gmail both synchronous and asynchronous simultaneously, which produces even more questions about the nature of narrative elements in

Gmail. Although I focus on Gmail, I believe that my emerging conceptual framework can be applied to similar applications such as Yahoo! Mail and even Outlook (with an additional IM program open at the same time). Also, for the sake of argument, I will assume that all Gmail is archived and very little is deleted since this was the original vision of Gmail, and the interface offers users a prominent “Archive” button as well as a new feature that allows you to “send and archive” any reply so that the user does not even have the chance to send and wait for the inbox screen to refresh, which gives them another opportunity to delete the email. In addition, Gmail logs all emails in the same thread as “conversations.” According to the official Gmail Help site:

Gmail groups all replies with their original message, creating a single conversation or thread. In other email systems, responses appear as separate messages in your inbox, forcing you to wade through all your mail to follow the conversation. In Gmail, replies to replies (and replies to those replies) are displayed in one place, in order, making it easier to understand the context of a message—or to follow the conversation. (Gmail Help)

This is both useful and rhetorically interesting because it implies your messages are more like open-ended conversations rather than terminal data.

The ultimate goal of this paper, however, is to describe a conceptual design called *Storyfox*, which will be a Firefox extension that exports Gmail archives into the format of a stage or screen play with the intention of supporting self-reflective storytelling. There are many websites and programs that work to support “digital” storytelling. What they all have in common is that the user generally begins from scratch and tell a *new* story. Instead, *Storyfox* attempts to harness the richness of one’s digital history to see the past in a new way. *Storyfox* is meant to be a personal tool. Rather than reading someone else’s story, you are reading your own in a new way using an older, more established format. This is why I believe *Storyfox* should appeal to a broad audience, not just writers and creative types. We all have a past and many of us have a growing, unmanageable digital history. This is, I believe, a new and unique way of exploring and confronting our past using narrative visualization. They say that if you do not learn from history, you are doomed to repeat it. If this is true then many of us probably have buried treasure sitting in our digital archives just waiting for us to discover. What can we learn about the story of our lives by seeing our lives as a story?

Related Work

In this section I will describe work somewhat related to *Storyfox*. The results of these projects also serve as a justification for continued explorations of email archives because their findings seem to suggest that users discovered great value in visualizing their email history in an unconventional way. For example, Viégas, Golder & Donath (2006) created *Themail*, a “visualization that portrays relationships using the interaction histories preserved in email archives. Using the content of exchanged messages, it shows the words that characterize one’s correspondence with an individual and how they change over the period of the relationship” (p. 1) *Themail* was developed “with the working hypothesis that a visualization of email content constituted meaningful portraits of people’s relationships” (p. 3) Two other projects, *Posthistory* and *Social Network Fragments* (Viégas, boyd, Nguyen, Potter & Donath, 2002) are visualization tools that allow users to see the “higher-level” patterns of their email habits. *PostHistory* focuses on dyadic email relationships whereas *Social Network Fragments* explores the social groups that emerge within email exchanges. The designers argue that “previous work on understanding online social interaction has shown that visualization techniques are important aids in helping users and researchers understand social and conversational patterns in other online interactions” (p. 3). They go on to argue that:

The value of our approach lies in providing users with the means to explore personal self-awareness through the exploration of their data patterns on the screen... Although our stories are as deeply embedded in our email as they are in our photos, we rarely have access to any sort of

‘snapshot’ of our email so as to have these deep reflections and storytelling opportunities (p. 2, 8).

A final related project is *Crystalchat* (Tat & Carpendale, 2006). *Crystalchat* uses a 3D representational model of personal instant messenger history. The goal of the program was to “reveal the patterns and to support ‘self-exploration’ of one’s personal chat history” (p. 1) *Crystalchat* also uses actual content from chat histories rather than email header fields (e.g. TO, FROM, SUBJECT). Because *Crystalchat* and *Themail* use actual content, it is most related to the design and goals of *Storyfox*.

Evaluation and Storytelling

It is extremely important to note that these visualizations of email are not just ideas that designers thought would be “neat.” User evaluations suggest that there is significant value in creating new ways for humans to make sense of their digital historical artifacts. For example, one user of *Posthistory* and *Social Network Fragments* said, “The [email] list hadn’t been used in well over two years, but the visualization prompted an impressive walk down memory lane, as people pointed out specific connections and why they emerged at that time... The little slice of history allowed the group to reconnect by providing the reminder of what had made us close in the first place” (Viégas et al., 2002, p. 7). One user of *Themail* said, “It’s almost like this serves a different kind of purpose from regular email readers... It’s more at a personal level... It’s emotional, it’s about reflecting and remembering” (Viégas et al., 2006, p. 6).

Most importantly for *Storyfox*, these projects suggest that email visualizations can act as a catalyst for storytelling around one’s digital history. For example, the designers of *Crystalchat*, wrote that:

Use of this tool prompts people to reminisce, telling stories about their personal history... People enjoy gathering around a set of pictures and hearing about the events that occurred when those pictures were taken. Similarly, viewing previous IM conversations triggered this type of storytelling. This is an interesting use for this type of tool. Previously, conversations were fleeting and often only hashed over in case of a disagreement. In contrast, this type of storytelling was clearly pleasurable. (Tat & Carpendale, p. 8)

Similarly, *Posthistory* and *Social Network Fragments* began as tools for discovering social patterns in email conversations, however, the designers realized that they, “turned out to be useful for self-reflection. Moreover, users felt compelled to tell stories around the data they saw in their visualizations and, in some cases, users became eager to share these visualizations with friends” (Viégas et al., 2002, p. 1). As one user commented, “Most people I showed these to seemed to say ‘Oh, that’s pretty!’ or ‘Wow, pretty cool.’ They could not, I felt, understand the stories behind the images; without my explanations it was almost useless” (p. 7). Much like photo albums, these visualizations prompted users to think about and share the stories *behind* the conversations. If storytelling emerged as a powerful element in the use of these projects then why not “visualize” email archives as a story right from the start?

Storyfox

Storyfox is a conceptual design that builds upon the aforementioned email visualizations. The concept is relatively simple—and that is part of its potential power—because, as Tat & Carpendale (2006) argue, sometimes visualizations can become too complex and cluttered on the screen (p. 2). *Storyfox* will be an extension for the open-source browser, Firefox, and it is meant, initially, to work only with Google’s Gmail. The reason for choosing Gmail is because the system already neatly organizes email threads as “conversations,” and Gmail is, obviously, tightly integrated with Google Docs. Once installed, *Storyfox* will export a user’s Gmail into a Google Docs template, which is formatted to look like a stage play or a screen play. Once installed, *Storyfox* will ask the user to grant access to their Gmail account. The program will also offer a variety of options

for how they want *Storyfox* to display scripts. For example, they can use Gmail’s built in “star” function and select a specific email conversation, a random one, or they can choose a date range, thus increasing the chance of finding very old messages (even messages imported from older systems like Yahoo! Mail etc.). *Storyfox* will use standard stage/screen play formatting and will also offer the option to include random, empty cues for stage/screen elements that users can add in if they wish (e.g., stage directions: JASON enters from back door carrying a pistol etc.). Figure 1 (see below) displays a mock-up of a basic *Storyfox* play script. The title of the “play” is pulled from the SUBJECT field of the email. The TO and FROM fields will provide the “Dramatis Personae.” In order to encourage users to have some narrative distance and see their conversations as a play, certain elements will *always* be displayed, such as, the dramatis personae, title, time and date and ACT I. In addition, *Storyfox* will “scrub” emails so that unnecessary information is ignored (e.g., headers, signatures and salutations such as “Sincerely, Jay”).

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Do You Like My Dissertation?  
By  
Jason Zalinger  
  
Dramatis Personae  
  
JASON ZALINGER, Ph.D. student  
NATHAN FREIER, Professor  
  
DECEMBER 3rd, 2007 — NIGHT  
  
ACT I  
(STAGE DIRECTIONS)  
JASON  
Hi Nathan, ummm. Did you like my dissertation?  
  
NATHAN  
You are an embarrassment to this program. We need to have a meet-  
ing.  
  
THE END
```

Figure 1: A mock-up of a *Storyfox* generated stage play script with the option for stage directions turned on.

Since research has shown that users enjoy email visualization and tend to tell stories *around* the images, my assumption is that if we give users a chance to see themselves as characters in the play of their lives, they might find a reason to pause and reflect upon their own history and how they interact with others. The true goal of *Storyfox*, then, is not see your digital history as a stage play per se, but to help prompt self-reflection and insight. My hope is that by seeing oneself as a character in a play, it will provide the user with a bit of distance and a new perspective. In addition, unlike the other visualizations, *Storyfox* is unique because, since it is a template, users can *change* the dialog in the “script.” I do not think that every conversation will provoke a desire to change the past, however, if the program randomly displayed an extremely personal and meaningful conversation from your past (e.g. family member passing away, breaking up with your girlfriend etc.), I wonder if a user would be tempted to change what they or the other person said. Thus, *Storyfox* is centered around four important research questions:

1. Will “visualizing” email as a play support self-reflection and/or storytelling?
2. Will *Storyfox* provide users with unique insights into their history?
3. Will users modify the “script” of their lives?
4. Will users learn anything new about themselves?

My working assumption is that *Storyfox* will be used as a tool to provide users a way to make sense of the rich, untapped resources sitting in their archives. As Viégas et al. (2006) argued, “personal identification” with the data is a key element in the success of email visualization (p. 10). In other words, looking at a visualization of *someone else’s* data is not as powerful as seeing your *own* history in a new way.

Conclusion

Gmail is not a storytelling machine. It is not an automatic story generator. It is simply a platform for creating and archiving story elements. Even though Gmail may upset or complicate traditional notions of narrative elements, this, I argue, only makes it a richer more nuanced warehouse for storing the raw materials of digital life. It is still the job of humans to tell the “final” narrative. Because of the incredible power of Gmail’s interface and rich set of evolving features, Gmail is an unparalleled life story tool. Our lives come together only after many years and much thinking and sweat and striving. Gmail’s power as a story platform does not necessarily rest in the present. Rather, it is after some time has passed, after certain long and stormy adventures that taking the time to look back at what Gmail has collected might be of great service to us. It might help us see more clearly the strange patterns we have developed and the ways that we, as characters in our own story, have changed over time. If we think about ourselves as digital storytellers and Gmail as our narrative platform, it might change how we see our own lives. If a person is self-reflective and wants to know themselves then Gmail is one of the most powerful tools we have that allows us to piece together the narrative elements of our lives, and it might even help ease and strengthen our own digital-life-coming-together.

Finally, this paper has laid out my vision for *Storyfox*, a narrative visualization program that displays a user’s email conversations as if they were dialog in a stage or screen play. *Storyfox* builds upon existing research in visualizing email, but it is unique. Rather than showing the user an abstract image, it gives the user a linear story format in the hope that seeing their past conversations as a story in a play will provide them with a new perspective. Furthermore, *Storyfox* gives the user a chance to change the “script” of their past. By combining the power of storytelling, visualization research and our own digital history, we can offer users a chance to begin mining their digital past to see new patterns and support reflective practice. As our personal, digital archives continue to grow, we need to start asking serious questions about what to do with all this “stuff.” We should expand our ideas of “visualization” to incorporate storytelling and other creative prompts. *Storyfox* is designed to be one potential answer to this problem.

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