

Towards an Online Community of History

Jason B. Ellis and Amy S. Bruckman
Electronic Learning Communities Group
College of Computing
Georgia Institute of Technology
jellis@cc.gatech.edu, asb@cc.gatech.edu

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Abstract

We are designing an online community that supports kids interviewing seniors on the Internet to build up a shared database or oral history. We are working to understand the extent to which it is possible to use computing technology to scaffold the complex activity of a diverse and distributed group of people. We have done a small-scale pilot study. Currently, we are doing a larger-scale pilot study and are building software that will make the history-collection process go more smoothly.

Introduction

Many children do not enjoy history in their first encounters with it. To be sure, the way history was presented in my many history classes in middle and high school left something to be desired. We were asked to memorize many dates – birth and death dates of Russian czars, a variety of invasions in Europe – that seemed to have little relevance to our daily lives. In addition, the human conflict seemed to be missing. For instance, all the important figures presented were either incredibly good (Churchill) or totally evil (Hitler). The grays that we are accustomed to in everyday life are sorely missing from our history texts [3].

But history is not boring. Later in life, history entered my life again in the form of numerous documentaries on cable and first-hand histories told by my parents and grandparents. This time, it was alive and full of the human elements that seemed so sorely missing from my formal education.

So, what went wrong? How was something with such rich source material reduced to rote memorization? We are building an online community that attempts address these issues. This system tries to help bring out some of the human stories and the drama in history for kids by engaging them with those who lived it.

We will discuss the interaction model we are using, the environment our work is being done in, the participants in the project, and the software we are designing. Early observations, design goals, and open issues are presented.

A Community of History

Our work is focused around kids and seniors. Kids bring an interest in computers, and a need to learn history. Seniors bring a need to share stories of particular importance to them in their lives. In working together, kids get a chance to learn history from those who actually lived it. Seniors, on the other hand, have the opportunity to pass their stories and lessons learned on to the younger generation. Other participants include teachers, historians, and volunteers.

The system is designed to be a constructionist [5] environment where kids listen to stories told by seniors, ask questions, and discuss. Based on these interactions, kids and seniors work together to build artifacts that tell the stories of historical places, events, people, and the like. Like CSILE [6] and others, we want to create a knowledge-building community where learners feel a personal investment in their work.

We have done a small-scale pilot study and have spent a large amount of time with kids and seniors to get a feel for our audience. Currently, we are doing a large-scale pilot study and are in the process of designing software to enhance this interaction between kids and seniors.

A number of human interface issues arise in this work. We need to choose the proper look-and-feel for our community – one that implies an environment for learning about history from seniors and historians. We need to provide a reasonable way for users with very different time schedules (or in different time zones) to interact. We need to create the tools for kids to build meaningful artifacts easily.

Of particular concern, however, is the need to design so that all the participants (kids, seniors, teachers, historians, volunteers, etc.) get what they need out of their interactions with one another. We have begun addressing this issue by starting with an interaction model that is flexible and respects different roles each user plays.

Interaction Model

We are planning to have kids (typically, a middle-school class) meet the seniors at the beginning of the project to put names with faces. Then they will go online – working on artifacts, having discussions, revising. At the end of the project, they will come together again, perhaps for a party with cake and ice cream, and discuss what they have accomplished.

One advantage of this model is that seniors can participate whenever they have time. They need not devote a huge block of time up-front. Our experience (doing initial interviews, introducing the project, etc.) has been that seniors are wary of time commitments, especially when they are not entirely clear on what a project entails. Allowing them to choose when and how much to participate, we feel, will increase their comfort level and, eventually, the amount of time and effort they are willing to contribute.

In doing the project online, logistical problems are minimized. For instance, our primary teacher contact enjoys bringing in people from the community to speak to her kids and taking her kids on field trips to visit a variety of community members. However, each time she sets up a meeting like this, it takes about a month of significant effort to get schedules coordinated. Because of this added effort, she seldom engages her class in these types of interactions anymore. Moving the interaction online allows for asynchronous interaction, which reduces these problems by removing the requirement that both parties be available at the same time.

Doing the project online also allows kids to pull in other historical resources from around their community and around the country. If kids are exploring the history of a particular region, they might engage seniors who grew up in that area, historians, and others with stories to tell, via the Internet. The power of this model is that kids are put in touch with seniors who have personal experience directly related to their work. Kids will be able to contact both local and non-local seniors and we hope each can help in slightly different ways. For instance, in doing a local history project, local seniors might be able to tell kids stories about the area over a long period of time. Non-local seniors, on the other hand, may be able to give kids the bigger picture by telling contrasting stories from around the country.

Finally, doing the project online makes it easy for kids to share the artifacts they have created with other classes so they can be leveraged in new projects. It also opens up the project to being viewed by anyone with Internet access, giving both kids and seniors a broader audience for their work – a potential motivating factor.

This work will be tied in directly with the literature and history curricula of schools. For example, kids might start with a story they are reading in class, reading it at the same time as seniors across town. Kids could generate questions based on their reading and begin an open-ended discussion regarding the text with seniors from there.

Background

We are working with an inner-city Atlanta middle school (6th - 8th grades). When we first visited the school, we were expecting the worst: disruptive students, signs of child abuse, bad attitudes, teachers that don't care, and perhaps even metal detectors at the door and a police presence. What we discovered, though, was that the kids at this school are just like the kids anywhere – very much like my middle school class and probably very much like yours.

However, these kids do have more issues to deal with than most. For instance, their parents do not necessarily value school as much as they should. Previous generations from this school have gone on to be pregnant teenagers, drug addicts, and even felons. Despite the fact that these 13 and 14-year-olds seem like ordinary children on the surface, it is likely that without intervention many of them will suffer the same fate.

The school we are working with is nearly 100% African-American and is just a five minute walk from the Sweet Auburn area of town. Sweet Auburn, during the 20's - 40's, was known as the "richest black street in the world." Along Auburn Ave., one can find the Martin Luther King, Jr. birth home, the King Center, and the Ebenezer Baptist Church where King and his father preached. One can also find the Royal Peacock (a famous concert venue), WERD (the first African-American radio station), the Sweet Auburn Research Library, the list goes on and on.

Sweet Auburn was a center of black power and wealth in the first half of this century, and remains an amazing historical resource today. However, we were surprised to find out that almost none of the kids we are working with knew anything of the rich history of Sweet Auburn, even though almost all of them live in the heart of the neighborhood. Thus, we believe it would be a powerful experience for the kids to engage the rich history of their neighborhood. Fortunately, there is a senior center nestled among the historical sites of Sweet Auburn.

Sweet Auburn has a number of seniors who are excited to participate in our work. We are just getting started with them, however. To give a flavor for the sorts of interaction one might expect, we will discuss a small-scale project done last year that with World War II (WW II) history.

At the end of the school year, the kids were reading excerpts from *Anne Frank* as part of their standard curriculum. We found a number of WW II veterans online and the kids brainstormed questions for them. We then e-mailed the questions generated by the kids to the seniors.

Given that the questions were somewhat simplistic ("Were you scared?" was a popular one), we were not expecting much in the way of replies – perhaps a few sentences. The results surprised us. In response to many questions, we got several paragraphs, detailing a variety of experiences and telling stories to illustrate points. One senior in particular got very excited. He scanned in and e-mailed photos of himself in combat situations, a number of magazine and newspaper articles that illustrated his points, and a political cartoon.

We were encouraged by this response. It seems clear that there are a number of seniors who are willing to participate in these kinds of interactions – in fact, they enjoy the process. Sharing these stories serves a need for them; the need to pass down their experience to a younger generation, a generation that has largely taken the outcome of WW II for granted.

Designing for Community

We are building a software toolkit that will support these types of interactions between kids and seniors. However, the design is still in the early stages. We clearly want to enable the recording of stories about significant places, important people, and events of note. We want to provide tools for the incorporation of many different media types – period sounds, photos of interviewees and important places – all brought together by kids. One idea is to allow kids to create a free-form multimedia presentation that ties all these elements together with prose.

Our software must support a user community with a variety of different needs. Kids, for instance, will need tools to help them locate seniors who can answer their questions. Teachers need tools that will help them evaluate each kid's contribution to the community. Seniors need tools that help them manage a number of interactions with separate groups of kids. We detail how we plan to address some of these issues below.

Group Rhythm

Each group of users has their own rhythm: kids arriving at school at school around 8 am and finishing by 2 in the afternoon, seniors emerging from their apartments around 11am and returning home at about 4. This is compounded by the fact that we are looking at bringing in seniors, historians, and other classes from anywhere in the world, which means time zones become a factor.

In order to deal with these timing issues, it is important that our software support robust, persistent discussion – one element of which is semi-synchronous interaction. Essentially, semi-synchronous means that the system supports rich chat-like interactions between users that are using the system simultaneously. In addition, this interaction is logged and made available to anyone who visits the site at a later time. This allows all users, now and in the future, to use a particular discussion, interview, or other online discourse as a component of artifacts they build. While discussions and comments may be made privately (not available to others), we will encourage users to speak publicly as much as possible since it is not always clear when tidbits from a discussion be useful later. The Babble system [2] provides some ideas in this direction.

Teachers

Teachers are essential to our work for many reasons. In particular, though, the fact that a teacher must buy in before any student ever visits our community is an important point to keep in mind. Thus, we are including special user interface enhancements and teacher support materials as essential ground-level features for our software.

If anything is clear from our work in the classroom, it is that teachers are overworked. A key goal of our system design is to assure that teachers need put in no more work to do a project with our software than with standard materials. One way we are addressing this is by designing a special teacher-only user interface which will simplify the evaluation of each students' contribution to the community – allowing teachers to more easily manage their class online.

As we are doing the design, we are taking care to keep scalability (or replicability) in mind. One of the main problems with technology-based classroom interventions is that they work quite well when the researchers are putting their heart and soul into the project, but fail in environments without such support. To reduce the difficulty of scaling the system, we are focusing our efforts on getting members of the community supporting each other instead of relying on the researchers to do so – creating a self-sustaining community. Teachers are in a good position to assist in this process as they can push the interactions along with meaningful projects. Thus, we are planning to provide extensive teacher-support materials along with the system, including lesson plans and sample projects. We are also planning to create a forum where teachers can share these materials with one-another.

Kids

In order to initiate contact with a senior, kids will first need to find a senior or historian who might be able to answer their questions – one who is interested in the sort of project they are engaged in. Our system will provide a profile database that contains descriptions of all the folks currently available to help kids. The CoVis Mentor Database [4] offers a similar service to kids looking for mentors for science projects. In our case, however, the contact will serve as more of an informal resource than a mentor. We hope that this will create longer-lasting and deeper relationships that kids can take with them even after they leave the project.

We plan to allow kids to personalize their workspaces – we want the community to be very much their world. For instance, a class will be free to adorn their corner of the community with their own artwork and photographs, audio

samples, and the like. This will give them a sense of ownership of the space, and hopefully instill them with an urge to build quality histories within it.

Seniors

Seniors are very active in their communities and elsewhere, so it has proven a formidable task to find time in their schedules for our work. For this reason, semi-synchronous interaction is particularly aimed at this audience. We want to provide a medium through which their stories can be transmitted and preserved without forcing them to change their schedules.

Seniors also have special needs in terms when it comes to using computing technology in general. Older hands sometimes have difficulty grasping and positioning input devices such as mice, and older eyes may have trouble reading small text. We are currently considering designing a completely different interface for seniors to address their special needs. Another idea is to simply implement some special user interface features targeted at seniors – developed by Worden, et. al. [7] and others – and allow users to switch them on and off.

Current Status

Currently, we are undertaking a larger pilot study with 37 middle schoolers. Kids will interact with seniors in the Sweet Auburn area using e-mail. They will use these interactions as a component of web-based artifacts they will build using off-the-shelf web builders like Claris HomePage.

In addition, we are building software to make this process go more smoothly, create more opportunities for collaboration, provide richer artifact-creation tools, and the like. Our experiences with kids and seniors using existing technology in this pilot study will serve as our guide. A detailed preliminary vision of our community is available on our web site [1].

Open Issues

Doing this work has raised a number of difficult issues. Here we offer a partial listing of those issues along with some potential solutions.

Measuring educational value. How do we determine the impact of our software? In an environment where many kids, potentially from different classes, are working on the same project, it is difficult to determine what each kid has learned from their work. One way to get at this is to administer pre- and post- attitudinal and knowledge inventories (essentially, tests) on paper. Another method might involve analyzing the artifacts built by kids.

Interface, interface, interface. We have done a number of preliminary design sketches for the look-and-feel of the community. One theme, American Timewarp, involved the kids building an online newspaper called “The Warp” that tells historical stories in the form of “past news.” Another, called Palaver Tree, used the West African metaphor of a tree where a whole community comes together to discuss community issues and tell historical stories. Finding the right metaphor for the system is a key issue we need to address.

Interaction flow. How do we facilitate the interaction between kids and seniors? One idea is to have kids brainstorm questions, pick a senior to send specific questions to based on their profile, and then open up a discussion that anyone can join based on their reply. Supporting this in software may prove difficult. We need to find a happy medium between building in too-rigid a framework (disallowing discussions unless an initial brainstorm has occurred) and one that is not rigid enough (kids just randomly sending questions to seniors). We need think more about our audiences and their specific needs in order to design a system that keeps them interested and involved.

What scaffolds history-making? What is the optimal system for supporting kids writing about history? We may just want to provide kids a general-purpose multimedia authoring environment, but this may prove cumbersome for our specific task. We need to isolate the needs of students doing history-recording projects and support those in

particular. Our participation in the large-scale history project discussed above should provide us with some thoughts in this area. We are also considering interviewing real-world historians and discussing their strategies and tools.

Conclusion

We are building an online community to support learning about history from the people who lived it. We have done a great deal of fieldwork to understand our audiences, both kids and seniors. Last school year, we did a very small-scale pilot study. Currently, we are working on a large-scale pilot study and are using the lessons learned there to inform our system design.

We hope our software will offer teachers a meaningful alternative to more standard history education activities. We believe getting kids involved first-hand with the discovery and recording of history will put them in a better position to appreciate those who have gone before them. More importantly, we hope making history tangible allows kids to realize that they, too, can have a very real impact on the world.

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