ReTweeting History: Exploring the intersection of microblogging and problem-based learning for historical reenactments

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ABSTRACT

Historical reenactments are an activity in which history enthusiasts research historical figures and gather to act out a famous historical event as those individuals. This chapter describes a development and implementation framework for conducting historical reenactments virtually using the *Twitter* microblogging service. Following a general introduction to the practices associated with historical reenactment, we describe the steps involved in successfully organizing a virtual reenactment, share some examples from already completed virtual reenactments, and present a firsthand retrospective and reflection from a high school teacher who led her history students in a virtual reenactment of the Cuban Missile Crisis. We discuss some central challenges associated with aligning virtual reenactments to problem-based learning approaches and close with specific proposals for improvements that could be made in future implementations.

INTRODUCTION

History educators have increasingly been focused on finding ways to involve students in authentic practices associated with professionals who study and interpret the discipline of history (Wineburg, 2001; Spoehr & Spoehr, 1994; Hynd, Holschuh, & Hubbard, 2004; Wiley & Voss, 1996). This more practice-based approach to history teaching is motivated in part by calls made in recent standards documents (National Center for History in the Schools, 1996) and also by the belief that authentic activities mirroring the work done by professionals can result in more robust learning (Brown, Collins, & Duguid, 1989; Wineburg, 2001). It is our view that newly emerging web technologies may provide an important new access point for students to participate in historical practices. For instance, the Internet is democratizing access to historical records and artifacts (Bass, Rosenzweig, & Mason, 1999). That access makes it possible for nearly anyone to work with and examine primary source materials from major historical events. Given the development of this new informational infrastructure along with the push toward development of authentic learning activities, we believe the time is ripe for considering ways in which new web-based tools and Problem-Based Learning (PBL) principles can be combined to create an environment that promotes student interpretation of historical events. Specifically, we believe social media practices, like microblogging (Nardi, Schiano, Gumbrecht, & Swartz, 2004), could play a key role. This chapter describes a development and implementation framework for integrating microblogging and historical reenactment in a service called *TwHistory*[2]. In the sections below, we describe the *TwHistory* program, present an example from a high school classroom, and provide one teacher's report of the experience of using *TwHistory*. We then

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[2] http://www.twhistory.org. TwHistory was conceived originally by Tom Caswell, Marion Jensen, and Rob Barton. The website provides free resources and guides for educators.

consider ways in which what we have developed adhere to the core commitments of problem-based learning and offer some suggestions for how virtual historical reenactments could be designed in the future with additional alignment to PBL design principles.

HISTORICAL REENACTMENTS AND THE SELECTION OF AUTHENTIC PROBLEMS

Due to its documented efficacy across a wide range of disciplines and types of assessment (Gijbels et al., 2005; Walker & Leary, 2009), PBL has garnered a great deal of interest among a diverse set of scholars from various disciplines (Savery, 2006). PBL has been paired with other various interventions and formats such as collaborative learning (Nelson, 1999) and educational games (Walker & Shelton, 2008), and is seeing emerging use in K-12 settings (Ertmer & Simons, 2006). Since its inception in medical education (Barrows, 1996), the term "Problem-Based Learning" has been adapted and changed (Barrows, 1986) to meet the needs of various disciplines and contexts. Yet, despite the promising results of PBL across several content areas, development of PBL experiences for social sciences has been relatively limited[3].

Given the limited research landscape, there is additional preparatory work that must be done to create a PBL learning experience with new web 2.0 technologies. That is, it is necessary first and foremost to carefully select facets of history as a discipline that make sense for a PBL instructional approach. We must consider, for instance, the kinds of authentic problems faced by those with expert knowledge of history, the skills that separate those individuals from traditional history students, and scenarios that allow students to take on relevant roles. While there are many possibilities (Gallagher & Stepien, 1996) we have chosen to focus on *historical reenactment* and

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[3] Notable instances of PBL implementations in the social sciences include Brush & Saye, (2008); Gallagher, & Stepien, (1996); Saye & Brush, (1999)

its related activity of *historical perspective taking*. Taken together, these activities require

individuals to examine and evaluate historical documents and assume the role of a participant in

a set of practices (Lave & Wenger, 1991) that centrally involve the gathering of relevant

historical evidence.

Historical reenactment is an activity undertaken typically by historians and history

enthusiasts who have studied an event and wish to simulate it with others. For example,

enthusiasts may gather to simulate the Battle of Gettysburg or an extended 1770 sea voyage of

the *Endeavour* (Cook, 2004). For the reenactment to work, a high level of coordination is

required: Participants must schedule activities, establish character relationships, and assign key

lines to be said by various actors. While reenactment is typically recreational, hobbyists often

research their roles passionately. This research typically requires historical perspective taking, in

which one must review available informational resources in order to determine the values,

obligations, mannerisms, social influences, and customs associated with individuals of a time

period. Understanding these perspectives is necessary as it helps historians and history

enthusiasts to understand why particular individuals or groups of people behaved or acted in the

ways that they did for a given time.

Echoes of Other Instructional Approaches

It is worth noting that both reenactment and perspective taking are, at least to some

extent, reminiscent of other instructional approaches, such as those of role-play or simulations.

Approaches involving the use of role-play within historical educational realms have been

advocated as one way to learn about perspectives of different individuals in historical situations

(McDaniel, 2000). This is in part because role-play offers students a way of considering

viewpoints that forces context when producing, or thinking about re-producing, historical voices. Simulations, on the other hand, are considered a step beyond most role-play kinds of activity structures in that they often include a more rigid set of circumstances in which the context takes place, they include an important set of objectives as directed by a facilitator or instructor, and they are less often accompanied by models that help form and affect the structure of the exercise (Hertel & Millis, 2002; Jones, 1987). Originally, role-play was designed with the assumption of face-to-face interactions between participants. Of course, simulations of the most recent decades are associated with technological support of some kind, whether that support comes as part of behavior or environment models. Modern-day simulations may offer virtual means for communication between simulation participants. Virtual 3D worlds such as Second Life, or other forms of multi-user virtual environments, have been used to offer learning means that can enable role-play but also take advantage of affordances simulations inherently offer (Davison & Gordon, 1978; Shelton & Wiley, 2007). For example, teachers can offer areas for students to practice in situations that would normally be too expensive or too difficult to reproduce using real-world means. These environments can also be made available to students in asynchronous or geographically diverse places.

In consideration of the potential to engage in role-play and simulation with the aid of social media, virtual communications between participants are also featured prominently. What is perhaps unique about social media compared to traditional views of role-play and simulation is the public nature of the interactions. For example, students learning through social media now have the opportunity to send and receive messages in asynchronous and public formats, which may alter the parameters of the exercise, and require some reconsideration on how the design of

effective learning simulations may be most effectively produced and implemented. This holds true for virtual historical reenactments.

TWITTER AS A REENACTMENT ENVIRONMENT

As stated above, we are particularly interested in using social media, and in particular, the *Twitter* microblogging platform, for our work. By using *Twitter*, it is possible to move historical reenactments into a virtual space rather than a physical one. The virtual space is an attractive alternative for reenactments that take place over the course of many days or weeks. Participants are still posed with the challenges associated with gathering evidence in order to "act the part," and they must also coordinate actions and events with others. For students, particularly of the college and high school ages, we think that moving to an online reenactment environment is an especially appropriate step to take. New media have created many new opportunities for youth engagement in the disciplines (Jenkins, 2009). A Pew Internet & American life survey found that half of all American teens and 57% of teens who use the Internet could be considered content creators. These teens have created a blog, web page, or posted other content online (Lenhart & Madden, 2005). Not only are the tools available for positioning students as content creators, but also they are able and willing to use them. The opportunity for educators is to engage students in a topic that may not necessarily interest them by using new media that does, by treating students as practitioners of history, and by adopting principles from PBL to create an engaging and authentic learning environment.

Twitter is a relatively well-known microblogging technology in which messages, or tweets, are sent and received from these user profiles through varying protocols, and mostly viewed through computers and hand-held devices. As with other types of microblogs, tweets are

often of a personal nature, involving commentary or description of one's activities and one's

opinions about some current state of affairs (Nardi, Schiano, Gumbrecht, & Swartz, 2004).

Twitter is unique, relative to other microblogging services in that it imposes a 140-character

maximum for tweets. Originally, this had been set as part of an effort to ensure compatibility

with Simple Message Syndication (SMS) texting systems, but this constraint has remained even

though texting technologies have advanced beyond the initial character limit.

     TwHistory was implemented first in early 2009 with virtual historical reenactments of the

Battles of Chancellorsville and Gettysburg that took place over a period of two months. Rather

than ask actors to gather in a designated place, the first group of participants in this program

instead used Internet collaboration tools to set up *Twitter* profiles for the characters they would

be playing. Events would be documented through tweets that could be directed to other

character profiles (indicated by the "@" character followed by a profile name). Followers of

Twitter reenactments received tweets in real-time as the characters of a particular historical event

communicate reported from their perspective about what was happening. In the original

Gettysburg reenactment, generals, citizens, soldiers, and even Abraham Lincoln had profiles

from which tweets reporting the events of the battle were sent out. A sample set of tweets in a

feed is shown in Figure 1.

[INSERT FIGURE 1 AROUND HERE]

     The *TwHistory* Gettysburg reenactment drew a diverse set of followers who subscribed to

the Twitter feeds. One of the Gettysburg followers was a very enthusiastic and skilled high

school teacher located in the Midwest region of the United States, who we refer to as Ms. F.

With assistance from two of the authors (Tom Caswell and Marion Jensen), Ms. F. adapted the

TwHistory model to create a *Twitter*-based reenactment of the Cuban Missile Crisis as part of a

Cold War History course she was teaching, using a version of the development and

implementation framework described in the section below.

BUILDING A TWHISTORY REENACTMENT

Developing a reenactment requires, first and foremost, the selection of a major historical

event. Once such an historical event has been selected, the virtual reenactment development

framework consists of four steps: Role assignment, content creation, content sequencing, and

deployment. First, participants identify key historical figures in the historical event. After the

cast of historical characters is set, assignments are made regarding which individual or

individuals will research which character. In the classroom, this would ideally involve a group of

3-4 students assigned to a single character. Depending on classroom size, this can be varied to

meet the needs of the historical event and the size of the class. For others populations, such as

adult history enthusiasts, it is entirely possible to have a single person play one or even multiple

roles.

In the second step, the content is researched, evaluated, and discussed using available

web resources and print materials provided by the teacher or facilitator. The small group

configuration that we recommend for the classroom, in which single characters are played jointly

be multiple students, is intended to promote discussion about where to search for appropriate

information on the historical figure, encourage group reflection on the quality and relevance of

the historical information that is found, and support team-based decision making about how to

incorporate the information into the reenactment. Doing this work provides opportunities for

students to engage in some of the same cognitive work as historians. Once a small group is in agreement about what to portray and how, the tweets are written and stored in a separate file until sequencing is determined.

The 140-character constraint in tweets is seen as being advantageous for at least two reasons. First, it encourages students to be concise. They must find a way to synthesize and compactly summarize important ideas so they can fit within a single tweet. Second, the small length of tweets encourages more frequent posts and allows for inclusion of character "flourishes". Students have the opportunity when reenacting an event in *TwHistory* to consider and include seemingly mundane activities in the lives of their characters, as long as it is backed by historical evidence. For example, in a recent reenactment of the Mormon Pioneer Trek of 1848, historical records showed that one pioneer, Orson Pratt, regularly noted barometer readings each day of the journey. The *TwHistory* reenactment ultimately included a number of morning barometer reading tweets to reflect this documented activity. These flourishes allowed the enactor to share more about what he had learned about the trek and Orson Pratt, and also helped to convey to enactment followers some information about environmental conditions and routine activities of these historic individuals.

The third step in making a *TwHistory* reenactment involves the entire class or group of participants combining all the character tweets together in chronological order. This provides an opportunity for students to verify that participants have written appropriate tweets that fit properly with what other *Twitter* characters will be tweeting and determine if there are any holes that need to be filled. This is especially true when tweets must be timed to the exact minute. Often historical documents do not give an exact time for when an event occurred, so the reenactors must make their best guesses about the exact times. For the sake of maintaining a

sequential flow of events, that guesswork is sufficient. However, some events need to be

coordinated across characters for consistency. For example, several of the historical figures

involved in the Battle of Gettysburg were also involved in Pickett's Charge. When the orders

came to move, it needed to be uniform from both the characters involved in the march, as well as

the Union soldiers who noted the charge had begun. In the classroom, this work of coordination

and tweet sequencing represents an opportunity for students to shift their attention from

interpreting the activities of an individual historical figure to a more explicit consideration of the

events and interactions that they will be simulating. For other groups of learners and reenactors

who do not share a classroom space, this coordination can be done asynchronously and remotely.

The final step is deployment. One option is for participants to manually send out tweets

throughout the days of the reenactment at intermittent periods. However, for followers of the

historical event, this has the potential of producing feeds that are hard to understand or situate

within an actual timeline of events and decisions. For example, a haphazard character tweet

about a diplomatic meeting with a government leader that takes place after tweets have been

made indicating that the government leader had been assassinated would create unnecessary

confusion. An alternative that we have explored is the use of a "cartridge" system in which the

final set of tweets is written and loaded into a third-party service that will then "fire" the tweets

at the same time of day in which the actual event took place[4]. While the decision to adhere to

actual times ultimately is one that needs to be made by the class of students or by other, non-

school based participants in a reenactment, we consider the convenience of using a cartridge

system to have a number of practical advantages. For a class of students, limitations of a rigid

school schedule are easily overcome. Additionally, using a scheduler system creates a reflective

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[4] http://www.socialoomph.com/

learning opportunity for students as they observe the virtual events as they unfold and consider

whether their collective interpretation and reenactment is indeed a coherent and accurate retelling

of those events.

TWHISTORY IN THE CLASSROOM: AN EXAMPLE AND REFLECTION

During October of 2009, the aforementioned veteran social studies teacher, Ms. F.,

collaborated with two of the authors to lead a class of high school students through a multi-week

process of reenacting the Cuban Missile Crisis. For the reenactment, the students played the roles

of John F. Kennedy, Robert MacNamara, Nikita Khruschev, and Fidel Castro among others. The

students drew from materials they had received in class as well as primary sources obtained

through the Library of Congress website. The students published over 500 tweets that began with

Major Richard Heyser tweeting about preparations for his U-2 plane flight over Cuba and

concluded with tweets from MacNamara and Kennedy reporting a peaceful resolution to the

crisis and plans for the future.

[INSERT FIGURE 2 AROUND HERE]

After the reenactment, we engaged in a structured reflection with Ms. F. about her class

and their experiences. As her firsthand account may prove useful for others who are considering

creating their own *TwHistory* reenactments, we provide several of her responses below[5].

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[5] Responses were edited slightly for readability

Researcher: Now that you have completed a historical reenactment using Twitter, would you do it again? Why or why not?

Ms. F.: Definitely – the kids seemed to enjoy it, and by the end of it were really getting into character. Although, a few students complained about how "hard" it was to do all of the work necessary.

Researcher: Looking back on this project, was the result what you expected? Were there any unexpected benefits or drawbacks?

Ms. F.: I would have liked to see a little more discussion between the characters, but I think I needed to give the students more prep time - before the crisis actually began - in order for them to be more fully prepared to have the sort of interaction that I discussed. In terms of overall results, however, it was what I expected, and the kids seem to have come out of it with a very good understanding of just what happened during the Cuban Missile Crisis.

Researcher: Now that you have done it once, what would you change?

Ms. F.: I needed to give them more prep time. Most of my students weren't familiar with *Twitter*, so I think I needed to give them more time to learn how it works, how to communicate in it, etc.

Researcher: What other resources do you think are needed for a historical reenactment using Twitter?

Ms. F.: I did provide a wiki for the class with a list of good websites that provided research information, as well as appropriate books, which I think was necessary. If my students were told to just find this info on their own, they would have been lost, but by giving them a series of 8 to 10 websites that gave them proper information/documentation/primary sources from the Crisis, they were able to put together timelines.

Researcher: How much time did you spend on the Cuban Missile Crisis?

Ms. F.: It took a little more time than a normal unit. We devoted 6 days of in-class time for students to research and work on the project. They also had homework for 10 days that was dedicated specifically to this project. Overall, we started this project on October 12th, and ran it through October 28th. Of course, that includes a few days in between with other activities or lectures.

Researcher: Considering that it took longer than a normal unit, was it worth all the time the students' spent to do this activity?

Ms. F.: I think it was worth the time. I had to sacrifice a little bit of content and, next year, when we go to a trimester schedule, will have to sacrifice more if I want to include this project, but I think it's valuable. While there were of course some students who seemed reluctant – as there always are for any activity - the majority seemed engaged and active. In particular, the groups who challenged

themselves by taking on some of the larger roles/parts seemed to get the most out

of it. They seemed invested and interested in making sure the project ran

smoothly, which I was impressed by. Any time students take responsibility for

making sure a lesson works, it's a good thing.

Researcher: In your opinion, did the Twitter reenactment encourage the

development of any of curriculum specific skills?

Ms. F: Our curriculum specifies that students should work on research and

writing. In particular, I think the reenactment helped with research. It was

probably less so with writing. I had them turn in a short synopsis at the end, and

based on that, I'm not sure that the project really helped their writing skills. But

having them going through transcripts of White House meetings, or primary

resources of any sort, was a very good thing, and I think made them think of these

resources as accessible, and not the "big, frightening, intimidating sources" that

most kids think of when they think of research with a primary source.

In summary, Ms. F. was generally positive about her experiences with TwHistory and

believed it had specific benefits for students' reading activities. It generated a good amount of

enthusiasm among students and only required a little more time than a unit she would normally

teach. Also, establishing a set of common resources for students to reference was, in Ms. F.'s

estimation, a very important contribution that she made as a teacher.

Based on these observations and our own reading of her class's virtual reenactment, we

are optimistic that *TwHistory* can serve as an effective platform for students to engage in the

problems associated with historical reenactment and perspective taking. As Ms. F. stated, many students "were really getting into character" as they gave voices to the characters they created. Yet, even with one case of a successful enactment, we still believe that there are a number of ways in which *TwHistory* could be enhanced. We believe this especially holds true if we consider other ways in which we could establish stronger adherence to the core principles of problem-based learning. In the following section, we will consider some of those possible enhancements, as that may aid readers and practitioners who wish to adopt or build on this framework.

TOWARDS AN EVEN TIGHTER COUPLING WITH PROBLEM-BASED LEARNING

As many readers of this volume are likely aware, Problem-Based Learning originated in medical education in part as a response to problems that plagued medical instructors for years. Medical students were bored in large lecture format basic science classes, they were unclear about what connection the coursework had to their future practice as doctors, and they struggled when they transitioned from passive learner to active participant in medical clerkships (Barrows, 1996). As a fundamentally pragmatic solution, Barrows simply started them in their clerkships from day one. Medical students were presented with patient cases and, in order to come up with meaningful diagnosis and treatment plans, the students had to acquire the relevant content knowledge associated with each patient case. Given only that background on PBL, it should be apparent that our intentions with *TwHistory* parallel those of Barrows. That is, we aimed to immerse students in an experience in which they are faced with an authentic task and must acquire relevant content knowledge associated with the specific situation at hand.

Yet, it is important to note that since it's inception, PBL has become associated with many different definitions (Barrows, 1986, 1996), and it behooves us to be clear in this chapter about our own. Stated simply, we define PBL as an approach to education in which students are engaged in problems as a means to both acquire and apply knowledge. Furthermore, we understand PBL environments as containing the following characteristics:

- Problems are *introduced first*, before lecture, and the instructional experience is centered on the problems that are provided (Barrows, 1986).

- Problems are *authentic*. Each problem reflects situations that *professionals* might or currently do face. As part of that authenticity, problems are necessarily complex. They may cross over multiple disciplines and they are not constrained (Savery, 2006).

- Problems are *ill-structured*. It is not immediately apparent to students what they need to do in order to solve the problem. They first have to define the problem space, and there is enough room within that space to allow students to engage in free inquiry of surrounding issues (Barrows, 1986).

- Faculty act as *facilitators*. The instructors or tutors focus on guiding students, asking them meta-cognitive questions about their actions and problem solving process rather than correcting misunderstandings or providing information (Hmelo-Silver & Barrows, 2008).

- *Students are at the center* of a PBL experience. The students define learning issues that need to be pursued and take a leadership role with respect to their own education. Participants engage in self and peer evaluation of their own efforts and the efforts of their group members (Barrows, 1996).

- Learning occurs in *small groups*. Typically, PBL happens in groups of 5-9 students. Groups divide up learning issues, individuals pursue them, and then results are shared with the group (Barrows, 1996).

PBL Alignment Challenges and Proposed Resolutions

TwHistory reenactments, like the Cuban Missile Crisis described above, share common ground with problem-based learning but could certainly be adapted better to the instructional approach. The following discussion elaborates on *PBL alignment challenges* with *TwHistory* alongside *proposed resolutions*. The high school students in Ms. F.'s class did pursue knowledge with a specific purpose in mind. However, their ultimate purpose was reproduction of a historical event. While reproduction is a task that a history enthusiast might engage in, its completion does not necessarily yield a resolution to an historical problem. Stated another way, the *PBL alignment challenge* is one of authenticity. *TwHistory* might be authentic relative to the work of history enthusiasts, but it may not be authentic relative to the work of *historians*.

A *proposed resolution* is to make *TwHistory* align closer to what historians do. To illustrate, consider what might happen with conflicts in primary source documents given the case of the Cuban Missile Crisis. White house/Khrushchev telephone transcripts could have conflicted with transcripts of Khrushchev's official radio addresses. While students may find these materials and conduct an ad hoc resolution of conflicting information, that process of resolving and reconciling the different primary sources is not the primary focus of their work. Their primary responsibility is to produce something that would make their virtual reenactment 'work'

when it is played out on *Twitter*. In effect, their primary goal was to 'put on a show' rather than

resolve a conflict in historical evidence.[6]

Were we to prioritize the historical reasoning processes of reconciliation and evaluation

of source material (work more akin to what professional historians must do), the learning activity

would need to be modified. One modification in this direction could have been made by

prioritizing for the students the goal of reconciling conflicts in information sources. In that

version, the students would have instead been advised to, first and foremost, pursue additional

evidence about Khrushchev's motivations until they could make a well-justified historical

argument.

An *alternative resolution* might be choosing a different form of professional practice. For

example, in their social studies PBL effort, Saye & Brush (1999) asked students to advise

President Truman on how to bring a speedy end to World War II. In that case, students faced the

real problems and challenges associated with being a policy advisor. While not taking on the role

of a historian directly, students would need to engage in similar research to make a meaningful

recommendation. In the Cuban Missile Crisis, a comparable activity might have been to ask the

students to behave as psychological profilers of Khruschev and predict his reactions to various

US responses.

On the surface, *TwHistory* embodies the collaborative independent study featured in

PBL. Learners engage in a divide and conquer approach where they research and investigate

historical figures, then come together to share their knowledge, build a timeline, and prepare for

the reenactment. However, the *PBL alignment challenge* is one of focus for each individual

learner. Historical events are often retold with certain individuals playing more prominent or

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[6] Similar conflicts are present in traditional media reenactments, which may be part historical
project and part docudrama (Cook, 2004).

dominant roles. The addition of strong roles, and the identification of students with more prominent characters, represents another deviation from the core commitments of PBL. Canonical PBL activities involve students jointly collaborating on the same problem. Asking students to research and then play individual figures is more closely akin to other forms of inquiry, such as *WebQuests* (Dodge, 1997, 2001). In her responses to our questions, Ms. F. had reported to us that student groups in the Cuban Missile Crisis who had more prominent roles (e.g., John F. Kennedy) seemed more engaged in the learning experience. Some students, such as those with minor roles, were far less engaged in the reenactment process.

Rather than asking students to take on individual roles with varying amounts of importance, a *proposed resolution* is shifting research to a group responsibility. Having groups take on a collection of major as well as minor characters that are thematically related might facilitate more uniform engagement. For example, groups might be assigned all the historical figures from the United States, the Soviet Union, Cuba, or the United States Press. If the work were more evenly divided, we predict that engagement would be more evenly distributed. And if student groups were accountable to all aspects of the reenactment, we might expect that students would be even more likely to see important connections between and among pieces of historical evidence related to different individuals than when considering just one character.

Student engagement is certainly a feature of *TwHistory* and students are at the center of their learning but *PBL alignment challenges* persist. Specifically, *TwHistory* tends to lack in self or peer evaluation and feedback. For example, while Mrs. F. encouraged her Cold War History students to stay in character with their *Twitter* messages, they did not always do so. At one point in the reenactment, Khrushchev sent a message after conducting a nuclear test, and the students responsible for his character chose to have him tweet the anachronism, "Boo-yah!" A *proposed*

resolution includes an increased emphasis on self and or peer evaluation of effort. By sharing

the burden of assuring all messages are in character and validating the historical authenticity of

statements with students, teachers reinforce the idea that students play a central role in their

learning process.

　　　Our interview with Mrs. F. suggests she did well in acting as a facilitator rather than a

traditional teacher. In particular she noted that students were taking responsibility for their own

learning. While not necessarily a *PBL alignment challenge*, here, facilitators can play a crucial

role in either promoting or hindering student responsibility. Other research documents cases of

facilitators lecturing to PBL groups when concerned that students were not learning enough

(Moust, et al., 1990). *Proposed resolutions* for this kind of problem include a focus on meta-

cognitive questioning and prompts (Hmelo-Silver & Barrows, 2008) as opposed to evaluative or

corrective feedback. For example, in the case of the "Boo-yah!" message, the facilitator might

ask a student or group of students to summarize the intent statement, to summarize what they

know about Khrushchev, perhaps asking them to review their profile of him and his speaking

style, and then reconcile any inconsistencies they see. The facilitator might ask students to

support their additions with primary source material. He or she would avoid labeling responses

as correct or incorrect since it could undermine the learner-centered nature of the intervention.

　　　Still more PBL-oriented adaptations could be made. Written scaffolds (e.g., McNeill,

Lizotte, Krajcik, & Marx, 2006), that prompt students to engage in key steps of the PBL process

could help. Such scaffolds might ask students to document their sources and assigning credit to

that documentation can help even further. Teachers may also choose to engage the class as a

whole in the PBL activity, a choice with precedence (Barrows, Myers, Williams, & Moticka,

1986; Rangachari, 1996). While keeping to meta-cognitive questions, teachers may still need to

be directive in terms of the PBL process, assuring students that they are on task and that the work

is evenly divided. As a final proposed modification, *TwHistory* reenactments could be expanded

to show off the process focus of PBL. Examining students' profiles of historical figures, their

support for additions to the timeline, and explicit ties back to source documents would not only

provide transparency for reenactment viewers, but it could peel back the curtain on how the work

was done. Similar to Mrs. F.'s observation that her students started to think of primary

documents as less scary, observers might be more willing to create their own *TwHistory*

reenactments and more weight would be given to the process of creating the reenactment in

addition to the product of the reenactment itself.

SUMMARY AND FUTURE WORK

The issues surrounding historical thinking and reasoning have drawn a great deal of

attention in recent years, with greater attention being paid to the role that technology can play in

this endeavor (e.g., Squire, 2003). This chapter presented one possible strategy for encouraging

historical thinking through an integration of social media and problem-based learning. We

offered a development and implementation framework in which we use the *Twitter*

microblogging service as a platform for virtual historical reenactments. Specific examples were

presented, including a re-enactment in a high school facilitated by a highly motivated and skilled

history teacher. We are encouraged by the results of the Cuban Missile Crisis activity that this

teacher led and believe that there is tremendous learning potential for virtual historical

reenactments. In the past, Barrows questioned (2002) whether or not existing tools could support

the processes of PBL at a distance. *TwHistory* may not be a direct response to this question since

students worked in small face-to-face groups. However, *TwHistory* does provide an opportunity

to show the products and perhaps the process of PBL learning in a way that is visible to a distance audience while simultaneously benefitting a local class.

More systematic design and evaluation work remains to be done. There are many potential spaces for improvement, particularly if we take seriously some of the features that have distinguished problem-based learning as an instructional method. Specific design variations might include changes in the types of problems presented, the nature of the group work, and the scaffolds provided to students to support peer review or focus their efforts. Given the dearth of existing research on social studies PBL environments, a great deal of investigation is needed about how these approaches impact student learning outcomes as well as more affective outcomes commonly associated with PBL such as motivation for learning, or satisfaction with the learning experience. The framework for reenactments in *TwHistory* presented here represents only a first step. We are encouraged about the prospects for work that transforms technologies emerging in the present into tools that help students delve into the past, and ultimately could reshape learning activities in the future.

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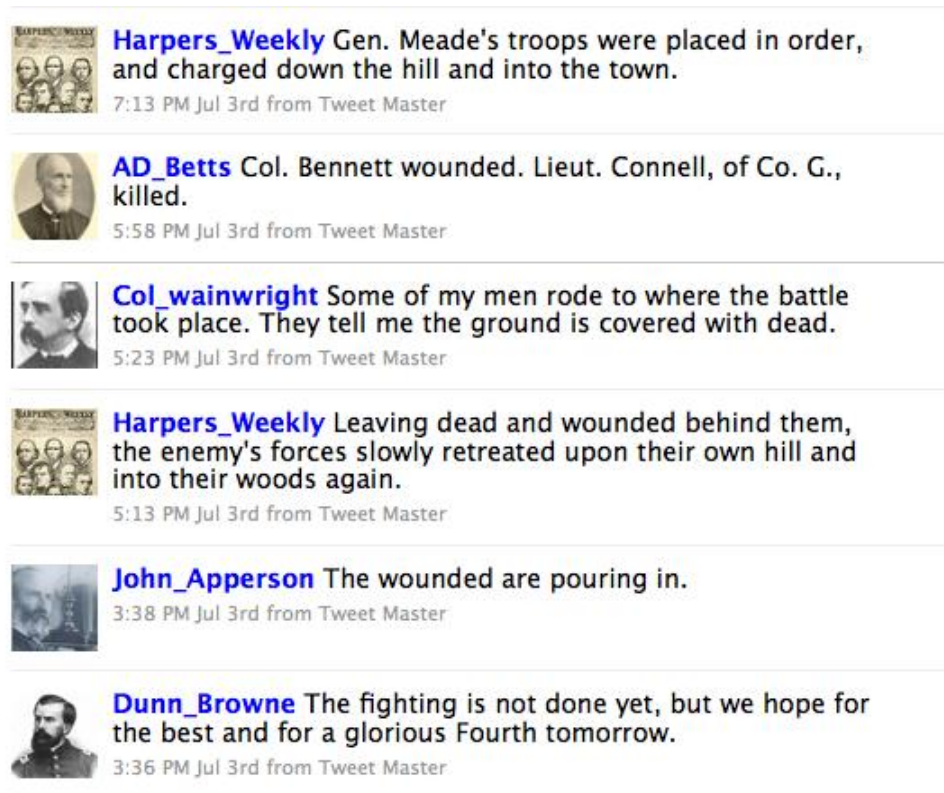Wineburg, S. (2001). *Historical Thinking.* Philadelphia, PA: Temple University Press.

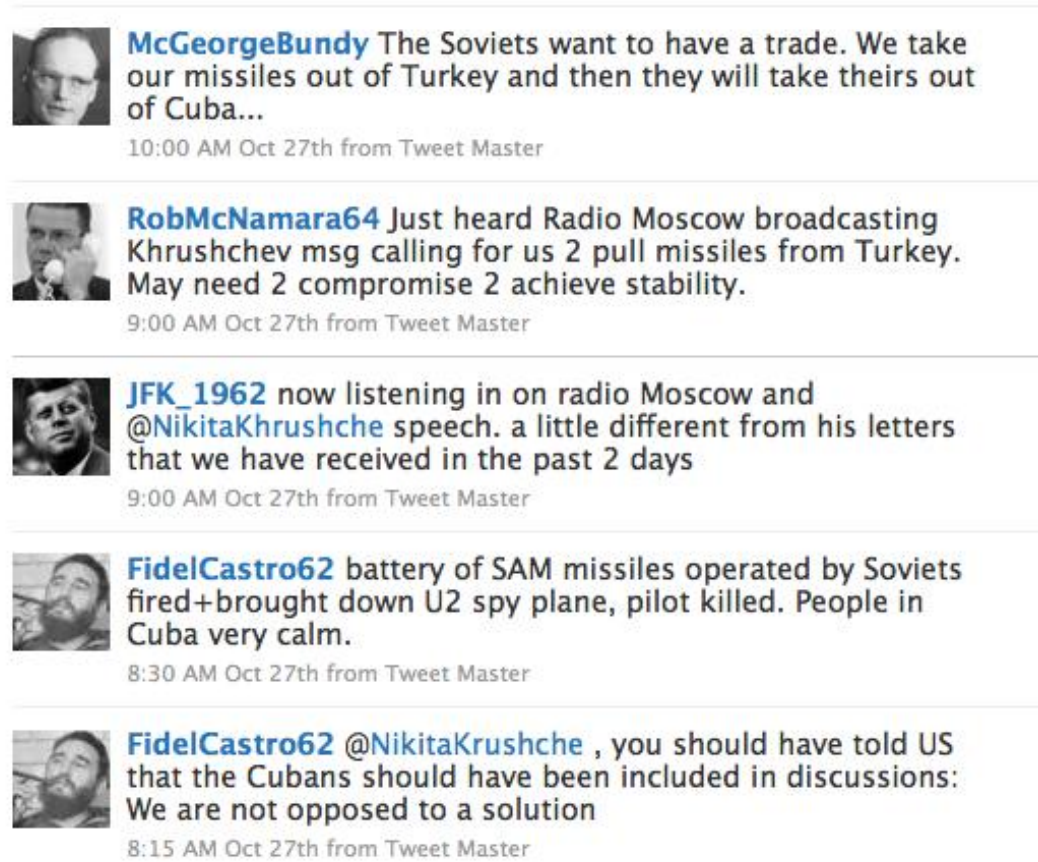Figure 1. Screenshots of *Twitter* feed from the Gettysburg reenactment ,

Figure 2: *Twitter* feed excerpt from the high-school student-led reenactment of the Cuban Missile Crisis.

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