Project VIEW: Camera Phones and Digital Storytelling to connect U.S. students with students in the developing world

John Kuner

Stanford / Reuters Digital Vision Fellow
San Francisco, USA
john.kuner@csli.stanford.edu

Susan Kuner, Ed.D

Vanderbilt University
Alameda, USA

Abstract

This paper explores the use of camera phones and digital storytelling for cross-cultural connections between students in the United States and students in the developing world. Although lack of access to computer technology is a common problem in the developing world, "mobile" phones are ubiquitous. Camera phones combined with non-verbal communications like movement and digital storytelling allow young people to establish meaningful connections with each other across geographic and cultural boundaries. The video exchanges are a cross between websites like MySpace and Facebook, traditional penal programs and distance learning. Research findings from a trip to Sri Lanka to investigate technological, social, and curricular protocols for camera phone cross-cultural connections will be reported.

'Thou shalt not' is soon forgotten, but 'Once upon a time' lasts forever.
-Philip Pullman

Introduction

The London subway bombing. Saddam's hanging. Thirty italian greyhounds running amok. What do these things have in common? People with video camera phones captured these events. A passenger shot the subway footage. A guard shot the hanging. And pets are always in the top three subjects captured by camera phones. When cell phone companies invented the camera phone, they weren't thinking social phenomena or digital storytelling or cross cultural communication. They were thinking about features that can be added to the cell phone to entice people to upgrade. The camera is now a standard feature on cell phones. Today, millions of people are carrying digital video cameras as their cell phones, taking them wherever they go.

Many events are captured on video; typically these events are just filmed and archived -- not communicated to a broader audience. One step beyond the initial act of capture is crafting a visual narrative. This paper describes several theories about narrative, such as the work of Jerome Bruner. By crafting something deliberately, one adds a personal touch that is extremely useful in cross-cultural communication.

Cell phone ownership and access is continually rising, both in the developing and developed worlds. Nokia alone has sold over one billion cell phones. Penetration is already high in the developed world, so now the highest growth is moving to the developing countries. As individual features become cheaper and more powerful, more and more of the basic phones will have cameras, internet access, and other features that were previously reserved for high-end phones.

In addition, the growth of mobile content comes hand in hand with the growth of mobile devices. Games, video, and music are offered by almost every cell phone carrier. Hungry for something new, users are starting to create their own content and watch content made by other users. Most of the videos on YouTube fall into this category, and this category has fueled many other Silicon Valley startups.

But to understand the difference between any random video and a story, we have to look at what defines a story. A narrative is more than just sequential events; there is dramatic tension, conflict and resolution. Creating a personal narrative allows a more focused and multi-layered communication. By combining the high level of camera phone use with desire for something new and personal, a service can be created that is both timely and useful.

One group that is researching and prototyping new services, combining technology with social change, is the Reuters Digital Vision Program at Stanford. The RDVP is an early-stage incubation program for social ventures, and hosts Fellows from all over the world. The Fellows work on projects such as m-commerce for farmers in the Philippines, disease surveillance in India, and having kids develop mobile games to teach financial literacy. I am one of the Fellows at the RDVP for the 2006-2007 academic year. My project, Project VIEW, uses camera phones for cross-cultural digital storytelling. Its online community supports mobility, digital storytelling, and cross-cultural communication. This paper will show the academic context for this project, how Project VIEW compares with other online communities, the digital storytelling creation process, and the current climate for such projects in countries such as Sri Lanka.

Academic and curricular context

There are several dimensions of self-expression that are appropriate to examine with camera-phone users. For example, there is interesting research about the nature of narrative and context, such as examining the components of a narrative, as well as looking into the basic need for connection.

Jerome Bruner defines a set of ten basic building blocks for narrative, such as canonicity and breach (in which an implicit set of circumstances is violated or breached by a precipitating event) "Narratives, then, are a version of reality whose acceptability is governed by convention and 'narrative necessity' rather than by empirical verification and logical requiredness, although ironically we have no compunction about calling stories true or false" (Bruner, 1991). A number of other elements, such as characters wanting to move a story along and events happening over time are also crucial elements of a narrative.

However, one does not need to rigorously follow these steps, some of them are implicit properties rather than explicit building blocks. A more accessible formula is the 'recipe' given in The Center for Digital Storytelling's Cookbook (Lambert, 2006) which lists the following elements of a story:

1. Point of View
2. Dramatic Question
3. Emotional Content

4. The Gift of Your Voice (meaning the literal author's voice)
5. The Power of the Soundtrack
6. Economy ("Most people do not realize that the story they have to tell can be effectively illustrated with a small number of images and video and a relatively short text.")
7. Pacing

Behind the theory of how to create a story, the question of 'why' arises. It is clear in this case that technology can fulfill a need: the desire for understanding. In Maslow's hierarchy of needs, the second highest need is self-esteem, "a stable, firmly based, (usually) high evaluation of themselves, for self-respect, or self-esteem, and for the esteem of others."

In addition to the personal desire for communication and understanding, there is an curricular push towards using technology for these exchanges. The International Society for Technology in Education (ISTE), the body that sets the technology standards for what students, is starting to move from a set of skills to learning about how to collaborate and innovate in the digital world. The proposed standard for 2007 includes Digital Citizenship, which is defined as:

Digital Citizenship: Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

A. advocate and practice safe, responsible use of information and technology
B. exhibit positive attitudes toward technology uses that support collaboration, earning, and productivity
C. demonstrate personal responsibility for lifelong learning
D. exercise proactive leadership for digital citizenship.

There are many other related topics, but the previous are several noteworthy ways to frame what students are doing, why they are doing it, and how it fits into other school activities.

Comparison to social networks and video sharing websites

There are many social networks and video services today, from the broad-reaching video website YouTube.com to the very politically focused social network site, My.BarackObama.com, which launched by the Barack Obama campaign to allow supporting voters to meet, socialize, and exchange ideas. Social networking websites are online communities where real-world relationships can be entered, visualized, and searched. One can define an identity based on a peer group as well as a virtual identity. Social networking websites allow a user to create and maintain a list of friends (Or contacts, in the case of LinkedIn, a business-oriented social network). Two of the key components are a friends list and a personal profile. In a personal profile, users add information about themselves, such as pictures, videos, location information, and more. These updates are distributed to their friends via the website and through email. Users spend a large amount of time on these sites simply maintaining relationships, sending messages, and reading what others have written.

In addition to social networking websites, video websites are extremely popular. In fact, YouTube was recently purchased by Google for 1.6 Billion dollars on the strength of its ability to provide something interesting to many people with niche likes and dislikes (BBC, 2007) Recent YouTube trends have been magic tricks, fake teen confessionals, and user-created home karaoke. Many of these took place before YouTube, but the effect of a more unified audience brought them all together in one website.

Project VIEW combines elements of both types of sites, but with the goal of deep connection rather than broad access. Project VIEW is more successful if two hundred people understand each others' stories than if two hundred thousand people click on a particular link. The goal is to take advantage of

the multi-layered format of storytelling to give listeners and creators time and space to have a more meaningful exchange. Using writing, pictures, video, and audio together in a short video piece will focus the interaction on the experience or perspective of the creator more than any single element. The key here is the ability to deeply use the interaction capabilities to foster a creative, interactive dialog.

In addition to a website, the project will have a curriculum component, to teach students how to create a digital story. Starting with a particular event or occurrence, the student will write a short, focused first-person narrative about it. Stripped of extraneous details, the student will add layers of photographs, video, and voice over. When edited together, this can become a powerful communication.

Another variant of this process is to begin with a short pre-writing assignment, then film the students reading their composition. Additional images to support the students' narrative can be added after the fact, either by the student or by a different editor. For example, when I visited Mission High School, in San Francisco, I gave the students a simple assignment about place. Regardless of their background, all students have a place they feel strongly about, most positively. The assignment can be summarized by two questions dealing about place:

Think about a place you love, perhaps your "special place"

- Describe the physical aspects of your place -- talk about how big it is, describe it as if you were giving a tour to a friend
- Describe the emotional aspects of your place -- what is the "vibe"? How do you feel in this place?

During this particular class, the students took turns as subject, director, and camera operator. One particular learning from this exercise was to encourage the students to use a tripod rather than shooting hand-held.

The entire exercise with ten students took place over the course of an 80 minute class, and students shared stories about places they love. The places were quite varied, several about their homes, like a favorite kitchen or bed, and one about a secluded place where the cops didn't hassle the student.

Simple movies like this serve as the basis for interactivity. By combining appropriate features of video sharing and social networking, the project will allow simple sharing of perspectives in a highly engaging, interactive environment.

Creating the story through editing

Editing is one of the most challenging parts of creating digital media. It is often more challenging than the original gathering of materials or the concepting stage. First, the technology must be mastered. Second, content and sequencing decisions must be made that result in a good narrative.

High-powered software for video editing is readily available. Basic software is included with the Windows XP and MacOS 10.4 operating systems; Windows Movie Maker and iMovie, respectively. Both programs have enough functionality to combine video, audio, and still images into a complete video piece. There are other interesting possibilities for editing, depending on what technology is available. Higher-end Nokia camera phones (such as the N90 and N93) actually have video editing software on the phones. On the Linux operating system, the two leading video editing programs are LIVES and kino. Both of these software packages have the same features as their Windows or Mac

counterparts, but the problem area is conversion. There are many different video and still image file formats, and as of this writing, the format conversion software on linux is not sufficiently easy to use or comprehensive enough.

One discovery from a recent trip to Sri Lanka was a higher access to computers in low-income community centers than expected. For example, I went to one orphanage that had high-speed internet access as well as seven modern-generation computers running Windows XP. In addition to editing, the entire digital storytelling process can integrate discrete skills previously learned in other standard curriculum. For example, a typical set of computer classes is Microsoft Word, Excel, Access, and Basic Internet. Each of these individually are useful job-related computer skills. With the addition of a digital storytelling curriculum, the students now have personal context that incorporates their previous technical skills and adds critical thinking and problem-solving. They can build on the basic skills from initial classes, such as using Word for script writing, or a photo editing program to import or modify photographs. They can acquire new skills such as the basics of video capture and editing using editing software. But most importantly, they have an overarching task that requires the use of their existing skills with a critical thinking and problem solving orientation.

Viewing the Videos

The end goal of this project is the exchange of ideas through viewing of videos. Through the interactive story exchange through the phones and web, students will be exposed to perspectives from other places and cultures. The actual viewing will take place on the web. Mobile versions, video podcasts, offline synchronization, and exporting to DVD are also possible with minimal effort. But like the editing, the viewing is best accomplished within an educational context, such as connected classrooms in a language program, sister cities in civics or government classes, and the like. With the addition of a curricular context, the familiar action of viewing a video on the web becomes an exploration of another perspective.

One specific example of this is my own digital story. When explaining the idea of digital storytelling, it has a certain association and listeners have a certain idea. But when they are shown my own digital story, viewers understand the idea of digital storytelling as well as my personal perspective.

Because mobile storytelling bridges cultural and/or geographic boundaries, it is important to include language-neutral forms, such as videos set to music or soundscapes. One example of this is a visit to a local neighborhood, in which the student films typical scenes, or shows himself traveling through a neighborhood. These can then be edited together and set to music found in that neighborhood or perhaps the sounds of the street itself.

After viewing an incoming message, the student may take some time to digest the video, start to think about a response, and the entire cycle starts again. Through the iteration of this process, viewing and creating thematic stories, the goal of cultural bridging can be achieved.

Field notes from Sri Lanka

For field research, I traveled to Sri Lanka in January 2007. My research was concentrated in the urban centers of Colombo. Sri Lanka is a relatively poor country for the average citizen. According to the CIA world factbook, the per capita GDP (Gross Domestic Product) is $4,600, compared to the $43,500 for the United States. (CIA Factbook, 2006). One man I spoke with had a good job, and worked every day of the week up to twelve hours per day, with occasional days off for special occasions. However, it is an excellent place for internet and particularly mobile phone-based projects. Over 4 of the 20 million citizens have cell phones, with a higher concentration in urban areas. Another person I spoke to made $25 per month for a full time job at a travel agency.

A young woman I spoke with was very familiar with cell phones, including prices of phones and services. She had plans with two operators and switched her SIM card (effectively changing her number but keeping the same phone) to take advantage of text messaging promotions for both operators, first using all of her '50 free weekend text messages' on one, then using 'free messaging within the network' on the other.

In urban areas, there is a moderately high comprehension of english, but language barriers can be overcome by using non-verbal video material, as described earlier. In addition, the current technology barrier can be mitigated through partnerships with schools, governmental groups, or community computer centers.

There are many armed soldiers on the streets due to the 'national problem', as the press calls it. Decades of political tension has a lasting effect on the basic environment. However, the situation is at least understood to be multi-faceted. Any conversation will likely turn to this topic, but the details change frequently, and the causes become further and further obscured.

Sri Lanka has many challenges, but it also has great growth potential, both on the commercial and social fronts. The students are very hard working, eager for education, and learn very quickly.

Conclusion

By showing the academic context, describing how Project VIEW compares with other online communities, detailing the digital storytelling creation process, and touching on experiences in Sri Lanka, this paper attempts to show the connecting thread: digital storytelling with camera phones has the potential to change lives through education and cross-cultural connections. By building on a solid framework of cross-cultural and storytelling methodology as well as using existing, low-cost technology like cell phones and basic editing software, this service has the potential to connect millions of students across the world, while educating them and broadening their cultural horizons. Initial prototypes have been very encouraging, and as the parts come together, I look forward to the iterative process.

Thank you for reading.

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Note

The latest version of this paper with accompanying material is available at http://mobilestorytelling.org