

# **Mobile Storytelling and Video Sharing for Inter-Cultural Communication: How Personal Expression Leads to Job Skills**

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## **Abstract:**

Mobile phones are one of the fastest growing sectors of technology in the developing world. Standard mobile phone features include digital video cameras and access to the Internet. These are the technical components of Digital Storytelling, which combines personal narrative with pictures, sound and video. Digital Storytelling is a growing trend in education and social media. Furthermore, mobile phones have been cited in the Economist as having tremendous potential for economic transformation by "reducing transaction costs, broadening trade networks and reducing the need to travel." What do these factors about mobile phones have in common? Adding a digital storytelling curriculum to local community clusters gives people a voice, creating self-esteem. Working with personal material rather than abstract examples, participants better comprehend and retain computer skills. This paper will discuss how digital storytelling combined with mobile phones can educate, empower, and teach job skills to participants.

## **Introduction**

A woman films a homemade digital movie about a commune. Kids in South Africa send a text message about HIV/AIDS and get a call back with a recorded public service announcement. An unemployed film maker in Paris shoots a music video on a cell phone.

These seemingly disparate elements have one common thread; new media. But more than the format, the novelty, or the 'Something 2.0' aspect, the real value of this rich, interactive communication is the potential for personal transformation, through personal expression and development of job skills.

This paper deals specifically with the confluence of jobs and personal digital content. Elements of these can have a dramatic impact on anyone. But the positive impact is compounded for those in under served or poor communities. This paper will demonstrate the following elements:

- how media creation, for example digital storytelling, is a growing trend and how it has personal impact;
- personal and professional media is growing at an amazing rate in the developing world, from small cellphones to giant movie screens;
- and how companies and governments are combining forces to leverage these skills into new jobs and new industries.

## **Digital Storytelling**

Content creation, like videos, podcasting, and photo sharing is a staple of the 'Web 2.0' ecosystem. Users are creating and uploading content from all corners of the world. YouTube, one of the leading video websites was purchased by Google for 1.6 Billion dollars. One interesting effect is the increasing ease of content creation on an individual level. Digital Storytelling is a term used to describe short-form, first-person, non-fiction personal narratives presented in a digital format, usually video or audio with accompanying pictures.

One of the earliest organizations to form around this type of media was the Center for Digital Storytelling, in Berkeley, CA. According to their website, "In the early 1990's, a group of media artists, designers, and practitioners came together to explore how personal stories and storytelling could inform the emergence of a new set of digital media tools. The CDS partnership grew out of the numerous collaborations and shared dialogues of this period in the San Francisco Bay Area." (CDS 2007)

Workshop participants start with a story idea, then refine their story into its most basic dramatic elements. For example, a transition point in one's life can be honed to the few moments before and after the transition. Written stories are usually one or two paragraphs, which translates to a minute or two of spoken audio. After recording a voice over, photos and videos are added, followed by video editing transitions (fades, wipes, etc), music, and credits. The finished product is a short movie, which can be copied onto a recordable CD or posted to the internet.

But the process is more important than the mechanics. By combining the technical (how exactly can this photograph blend into that one) with the personal (what's the best way to tell this story?), the result is that the participant sees that he or she can be a media creator as well as consumer.

Amy Hill, Director of Community Projects at the CDS, describes it like this:

"The core focus of our community work is to elevate the voices and images of those who are typically under- or mis-represented in mainstream media. We offer the equipment, teaching, and a safe environment for them to explore their stories and those of their communities. The digital stories that emerge from these workshops are used in a variety of ways – as public education tools, to mobilize communities to take action on critical social or political issues, for policy advocacy and much more."

Overall, digital storytelling is an example of personal content creation that is rooted in personal expression but still represents the potential for individual media creation.

## **Cell phones for collaboration and learning**

In countries where many people have limited access to computers or internet, cell phones are the primary means of communication. Beyond a simple phone call, technologically illiterate kids can quickly learn to access and create in a way that would surprise even the most tech-savvy American teen. One-to-one communication has been a strong force for change, but novel uses of cell phones are the second generation of change.

There is no question; cell phones are huge. Amazingly huge. Nokia alone has sold over a billion phones. Almost 2 billion people are current mobile subscribers. And unsurprisingly, developing nations are the biggest growth market. Video cameras and Internet access are becoming standard features on affordable cell phones. For example, the Nokia 2630 introduced in spring of 2007, comes with a camera, Bluetooth, and email and sells for around 80 dollars. The real story is not just about the sales,

though.

Systems created for the mobile infrastructure can support instant connectivity for sound, video and text. For example, the MobilED platform combines a MediaWiki (collaboration software) server with mobile technologies to create an audiowiki, which enables users to access and author content with basic mobile phones using text messaging (SMS) or advanced handsets with picture or video message (MMS) capability.

On a global scale – driven by rapid growth in developing countries in recent years – mobile penetration has surpassed access to internet connectivity. In 2004, global internet penetration was 13% while mobile penetration was 32% (and expected to be more than 50% in 2008). The reason for this include the low cost of mobile phones, the ease of use, and greater accessibility. In South Africa, for example, over 95% of the population was covered by the three cellular network operators in 2004. The widespread uptake of mobile technologies has created many opportunities for collaborative and mobile learning (mlearning).

The MobilED (Mobile EDucation) project, led by the Media Lab at the University of Art and Design, Helsinki, and the Meraka Institute in South Africa, aims to explore these opportunities within the field of youth education, in and out of schools. The project is aimed at designing formal and informal learning and teaching environments that are meaningfully enhanced with mobile technologies and services. It is based on principles of social constructivist pedagogy, including group-centered learning, project-based learning, problem solving and inquiry learning. It is an open-source and open content initiative that creates the ability for all to access and, more importantly, contribute their knowledge to shared online information repositories. There has been keen interest in the project from the educational sector: other MobilED pilots are happening in Brazil and India, with plans underway for Colombia, Mexico and New Zealand.

MobilED includes the design, development and piloting of prototype applications where multimedia and language technologies (text, images, audio) are used via mobile phones as tools in the learning process. Two working prototypes have been developed: the MobilED Kit – a box with mobile tools, software and guidebook for use in a classroom or youth club to carry out collaborative mobile learning projects, and the MobilED Server – a technology platform to support the kit. The MobilED server has been used with a MediaWiki (to create an audiowik) as follows:

- (1) A user can search for a term by sending an text message (SMS) to the server,
- (2) The server then calls the user, and
- (3) A speech synthesizer will read the article found in the wiki. Users can navigate through the audio of the article (skip forward, back, etc.)
- (4) The user can also contribute his/her content by dictating it to the system.

The system has been successfully piloted three times in South African schools: the first two involving basic mobile phones and the audiowiki, which was first seeded with content relevant to the pilots. The students assessed the effects of HIV/AIDS on the different levels of society (person, family, community, etc.), and collectively pointed out different strategies that are, or can be, employed at each of these levels. They first conducted research by accessing the audiowiki, then they recorded their strategy message as an audio piece via MobilED. The message was communicated to the school community as an audiocasting show. To access the audiowiki and the audiocasting service, the students shared Nokia 3230 phones with speakers. They did not use a PCs at all.

Whereas the first two pilots focused on the mobile technology most accessible in South Africa – basic phones capable of SMS and making and receiving voice calls – the third pilot looked at the use of more advanced mobile phones with multimedia capabilities. It consisted of a joint project between a low-

income public school and affluent, private school, based on MMS (text, image, audio) content. The collaborative task for the students was to create a presentation about a field trip to the Meraka Institute. They used the phones to take photos, add text, compile a slide presentation and send it to the server. Other students could then view the presentations. The students worked together in pairs.

Overall, the results show that students learned to use mobile phones very fast in the small groups, even when not at all technologically literate. Students were engaged and energized throughout the learning experience; during the contextual interviews, the students told that they found the field tests very interesting and empowering. Recording their own audio was the most exciting part of the pilot.

The real potential of the MobileED solution in developing countries is that anyone with a mobile phone is able to be an active participant in the information society by being a contributor and not just a passive recipient of information. It also facilitates that elusive goal of the creation of more (digital) local content in local languages.

### **Cluster Development case study**

An economic cluster is a group of businesses, usually small or medium sized, in one particular geographic region and industry grouping. For example, Cap Digital was created "to make Ile de France (the Greater Paris Region) synonymous of the world's foremost economic cluster in talents, products and services serving the Digital Content and Knowledge Creation industry."

Cap Digital worked with a local French organization called Reseau 2000 (Network 2000) to set up a program called Digital Pathways, in conjunction with a San Francisco media arts organization called Bay Area Video Coalition (BAVC). The goal of Digital Pathways is to train students in media arts creation in conjunction with the companies in the local cluster. In other words, local 3D animation companies work with students learning 3D animation, video production companies work with students learning video, etc. Their focus is marginalized youth to be 'reinserted in industry'. To address the problem of hiring employees with unknown skills, companies can follow the progress of promising students throughout their training, establishing informal relationships before formal ones start.

The developed world already has lots of job opportunities specifically in media sector; in sectors like video games, movie making, web companies, all of which measure results in the billions of dollars. The earlier example of Cap Digital is a great illustration of how the media industry can work hand in hand with training and development. Students who complete training programs are directly eligible for jobs in this sector. And it is a huge growth market. According to Business Week, the market size just for Hollywood is over \$50 billion. So students who learn video production can move directly into video production-based jobs.

### **Entertainment becomes economy**

In the developing world, the media business is more variable. Local content creation certainly exists. For example, the Indian movie industry (Bollywood) is almost a \$3 billion market. And on a smaller scale, there are thousands of videos uploaded on sites like bollywoodtube.com, and even downloaded on mobile phones.

For a deeper look at one particular ICT (Information & Communications Technology) and entertainment ecosystem, I turned to Nam Mokwunye, a leading Nigerian entrepreneur working on a service called ICE, a "for-profit social venture transforming 100 Nigerian universities into a network of digital campuses by connecting them with one another and the world." (Mokwunye 2007)

The Nigerian movie industry (Nollywood) has been funded by trade organizations since the videotape

era. Initially, small trade groups would bankroll short movie production and distribute them on videotape throughout Nigeria and Western Africa. As the content side grew, the demand grew as well, eventually spreading to the global Nigerian and African ex-pat communities. Nollywood is currently estimated to be between a \$400 and \$800 million market, and growing at an astronomic rate. The success & scale has started to attract the attention of the formal business sector as well, and funding is increasingly coming from banks and private equity in addition to the informal sources. Content creation jobs are starting to emerge as well. Some examples of companies in this space are content platform companies (like ICE) and new media studio companies (such as Woo Interactive).

In terms of scale, Nigeria has a population of around 160 million people, of whom 47% are under the age of 15. (Nigerian Embassy Figure). The majority of Nigerian industry development seems to be happening in the private sector. And on top of that, a large portion of the growth of the entertainment industry comes out of the informal economy, which is valued at almost 60% over the formal Gross Domestic Product (GDP).

The biggest factor for the potential success of media learning projects leading to media jobs is the unfortunate scarcity of educational opportunities at all. For such a large population, there are only 126 universities. Out of a total youth population of roughly 60 million, 800,000 students apply for 200,000 spots, a tougher acceptance rate than many leading American schools like Duke, UPenn, and Cal Tech. And once the students are enrolled, they still don't have access to the internet. Cell phones, however, are a huge in Nigeria, and have far surpassed land line usage.

With such a high demand for education, there is a huge demand for all varieties. So a media-based training program such as the ones currently being offered by BAVC and Reseau 2000 would be like throwing seeds onto very fertile ground. Culturally speaking, there is a high value placed on education. Training that leads to job skills would be very highly valued. Even companies who charge a lot for formal training are oversubscribed.

## **Conclusion**

Personal media creation is the communication modality that is most in sync with mobile technology. The first cell phone revolution was the expansion of one-to-one communication any time, any where. The next level of cell phone development is the communication of community: one to one, one to all, all to one, all to all that maintains a personal connection lost in the mass transit of the Internet. Digital Storytelling is one of the building blocks of expression that enhances the experience of the teller and the viewers. The impact of Digital Storytelling ranges from an increase in self-esteem and expression up to acquisition of job skills and even new job creation.

In the shorter length workshops, students learn basic computer skills so they can create a digital story. This basic familiarity is typically more useful in empowerment than employment. Specifically, it can be a great revelation to make ones own movie. Three days of working with computers, cell phones, and videos can also help increase basic computer literacy.

By extending the format of digital storytelling into longer-term media creation training, the strong personal expression becomes supported by strong and deep job skills. And with longer engagement with training material, amateur media makers become professional media makers. The impact is amplified when local business clusters collaborate with these programs. So in the Cap Digital example, the Digital Pathways program plans to grow in sync with the local industry cluster.

As shown in these examples, mobile phones serve as the foundation for new models of education and industry. Digital Storytelling is a new language of education and business. Mobile business clusters are viable organizational structures. This paper suggests communication modalities, educational strategies, job training and organizational models for emerging markets enabled by mobile phone and video technology.

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Review 1:

Status: Accept

Comments to authors:

This work is about providing training to the workers in a business cluster. There is a high relevance of the work in relation to how to educate the workers to adopt ICT work.

Following are the points that need to be considered by the authors for final presentation: (a) how to educate the workers in ICT (how the problems of illiteracy and zero ICT-awareness can be overcome) (b) how the co-location of the community can be utilized to quicken the pace of learning? Can community-based learn be more efficient than individual learning? (c) What is the level of sophistication they can adopt in ICT knowledge of job skills? (d) What is the best method to train them (mobile phones, kiosks etc)?

Because the workshop theme is on business clusters, stress on community-based learning can be the strong point of the paper.

Review 2:

Status: Accept

Comments to authors:

This work is about providing ICT training in local community clusters. And is of high relevance to the workshop.

I think authors should bring out the following aspects in their final paper:

(1) The authors have quoted that "/reducing transaction costs, broadening trade networks and reducing the need to travel." Since the workshop is on business clusters therefore the authors need to elaborate on these aspects. (2) Also the authors should also answer the question of how working with community clusters is better than working with individuals.