

The Story Economy: Digital Storytelling in Community Informatics

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SOWO 881 – Community Practice and Planning

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April 22, 2008

I have not given or received unauthorized aid in preparing this written work; I have not plagiarized the work of anyone else from books, articles, websites or personal communication; and I have not submitted work for this class that was developed for a previous or concurrent course.

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Introduction

Community practitioners are often concerned with those who are of few resources. We work with communities that have lost resources they once had – or perhaps those assets were taken away. Maybe political, economic, and social forces combine to deny a community access to the tools of development. Or maybe our political schemas, our economic systems, and our cultural constructs do not even allow us to *recognize* certain community activities and assets as resources, as John Friedmann demonstrates in his description of the household economy in *Empowerment: The Politics of Alternative Development* (1992). There are surely other failures of our ideological imaginations that prevent a more inclusive and holistic approach to community empowerment. One such example is the unrealized potential of the story.

It is hard to underestimate the importance of the story to humanity, because it is both a means and an end. We weave together cause and effect in an effort to uncover truth, and so narrative is our fundamental building block of meaning and understanding. At the same time, our best definition of ‘truth’ may simply be “a story to which we can all agree.”

Storytelling is both simple and powerful, and these two characteristics make it a valuable tool in the struggle for social justice: everyone understands stories and everyone has a story. Indeed, there is a macabre inverse correlation between abject circumstances and narrative. Absolute poverty, for example, can only be the result of a tragic narrative. Such stories have an undeniable quality that enables them to be persuasive arguments for change. The civil rights movement of the sixties proved that when narratives of injustice gain traction in the minds of policy makers, those stories can result in progress. A woman too tired to relinquish her bus seat to a white passenger, a small group of black men who refused to leave a lunch counter – these and other actions were catalysts for change that ruptured the fabric of the status quo, and were turning points in the narrative of white privilege. Stories, therefore, can be a resource for people when other resources are scarce.

Yet we know that stories alone do not change anything. Narrative evidence abounds of political, social, and economic injustices that continue to be perpetuated around the globe. When misused, the stories of the disadvantaged can even result in exploitation rather than empowerment. Stories are a resource, but we must still

investigate the mechanisms through which they can be reliably and effectively used in community development.

We are fortunate, then, to find ourselves at a moment in history where narrative and technology can combine to facilitate such a process. Since the adoption of the World Wide Web, information and communication technology (ICT) has radically impacted the world, ushering in an era of globalization. Because of its expense and complexity, ICT has largely benefited traditional nodes of social, economic, and political power. The proliferation of ICT has even resulted in the creation of a booming high-tech information economy that did not exist twenty years ago. Very recently, however, there have been trends in ICT that hold immense promise for community development; neither capital nor technical expertise create the same barriers to participation as they once did. As these barriers continue to shrink, the time is ripe for communities to leverage their stories in the digital realm for social, economic, and community development. Digital storytelling provides an unprecedented opportunity, through a “story economy,” for disadvantaged communities to participate in the information economy and to simultaneously work towards the goals of social and political empowerment.

Theoretical Basis of the Story Economy

The idea of the story economy is informed by the theories of alternative development and community informatics as set out by John Friedmann and Michael Gurstein, respectively. Friedmann’s theories are most helpful in defining the central problems of “traditional” development. Through the practice of community informatics (CI), Gurstein outlines an approach to community development through ICT that can be viewed in relation to Friedmann’s alternative development.

Alternative Development

Friedmann argues that efforts to cultivate development have failed because of the inadequate underlying structures and assumptions of our economies, hence the need for an “alternative” development:

No matter how dynamic, an economic system that has little or no use for better than half of the world’s population can and must be radically transformed. Broadly speaking, the objective of an alternative

development is to humanize a system that has shut them out, and to accomplish this through forms of everyday resistance and political struggle that insist on the rights of the excluded population as human beings, as citizens, and as persons intent on realizing their loving and creative powers within. Its central objective is their inclusion in a restructured system that does not make them redundant. (1992, p. 13)

Alternative development, therefore, is “centered on people and their environment rather than [mass] production and profits.” In his revised “whole-economy” model, Friedmann recognizes that the poor are actively engaged in the production of their lives and the betterment of their livelihoods, activities that usually suffer from “invisibility to official eyes” (p. 43). This invisibility, then, is not for lack of visible activity, but because traditional economic metrics such as the gross domestic product lack the ability to recognize such activity.

Friedmann goes on to show that increasing household access to certain bases of social power results in the improvement of living conditions, a “measure of genuine development” (p. 69). This re-thinking of development is enormously useful in that it places the household at the center of a “whole-economy” model and it forces us to recognize modes of production that our neoclassical economic systems do not value. However, I believe the advent of the information economy requires that we revisit Friedmann’s model to determine its role in a whole-economy model, and whether it might even provide an opportunity for the previously excluded to participate in more mainstream economic activities. Friedmann says an alternative development is necessary partly because the activities of the poor are often incapable of being “traded for money” (p. 52) in a production economy. But in an *information or knowledge* economy, we find that the production of livelihood has an enormously valuable byproduct: the story.

The story as a source of qualitative data provides an entry point for the excluded majority to participate in the information sector of the mainstream economy. This can be accomplished by the production of digital artifacts through which the disadvantaged tell their stories, i.e. through websites, videos, slideshows, blogs, audio documentaries, etc. These digital stories can then be monetized through various methods. Additionally, the technical skills used in the production of digital stories are highly sought after in the information economy, providing even greater economic mobilization.

This should not preclude a continued emphasis on the activities of the household economy as described in *Empowerment*; the ideology behind Friedmann's alternative development is still very useful if we are to attempt to provide communities with entry points to the information economy. It remains essential to continue the struggle to increase access for these communities to the various bases of social power that Friedmann identifies as necessary for the improvement of livelihoods. In fact, access to some of these social power bases (including knowledge & skills, appropriate information, social organization, social networks, and financial resources) can be greatly facilitated by collective, digital, community-based storytelling.

The mechanisms for any of this to happen – for digital storytelling to become a viable community development tool – are generally not yet in place. Communities cannot monetize their stories without training and training can be difficult to implement for a variety of reasons. For solutions to these problems, we can turn to the practice and theory of community informatics.

Community Informatics

“Community Informatics (CI) is the application of information and communications technology to enable and empower community processes” (Gurstein, 2007, p. 11). It is an emerging field that represents a convergence of information science, social activism, systems management, technology, policy study, and community practice. As an emerging field, a coherent community informatics theory is still being formulated. Michael Gurstein is usually credited with bringing the term to prominence, having edited the first collection of scholarly essays about the idea, and serving as the Editor in Chief of the *Journal of Community Informatics*. At this early stage, Gurstein tells us that “CI represents a number of different things to different people” (*ibid*, p. 9). Unfortunately, the same can also be said of the term “digital storytelling,” a phrase that is used to describe everything from interactive multimedia journalism to Hollywood blockbusters. Any attempt, therefore, to situate digital storytelling within community informatics is on shaky theoretical ground, to say nothing of the dearth of evidence-based evaluations of digital storytelling initiatives in CI programs.

One of the most important tenants of CI is the exhortation to rethink the “digital divide.” This phrase has gained considerable traction among certain academics, politicians, and community advocates who recognize the importance of equitable access to ICT. Lohmann and McNutt summarize the argument this way:

One of the key information issues that community practitioners must confront is the emerging digital divide between the information ‘haves’ and ‘have-nots.’ In a knowledge-based economy, the lack of access to information may prove to be even more critical than limited financial resources in defining real poverty. (2005, p. 644)

The potential for ICT to “become a power tool for class domination or a simple reinforcement of existing and future inequalities (*ibid*, p. 636) is real, but typical efforts to eradicate the digital divide are too often framed exclusively in terms of *access* to the Internet. The problems created by the proliferation of ICT are in fact much more complicated than the simple provision of technical infrastructure. “Access in itself is insufficient – rather it is what is and can be done with the access that makes ICT meaningful” (Gurstein, 2007, pp. 12-13). While it is true that many communities still do not have Internet access and that computers are still too expensive for many poor families, providing Internet access and hardware does nothing to ensure “effective use” of those technologies. Community Informatics practice seeks to expand the digital divide conversation beyond infrastructure and into the realm of community practitioners:

Developing strategies and applications for using ICT to support local economic development, social justice and political empowerment; ensuring local access to education and health services; enabling local control of information production and distribution; and, ensuring the survival and continuing vitality of indigenous cultures are among the most significant possible applications and goals. (Gurstein, 2007, p. 46-47)

The intersection of alternative development, community informatics, and digital storytelling has yet to be fully, or even partially, explored, but I believe such uncharted fusions may be the key to successfully meeting the social justice problems of the 21st century.

Importance in Current and Emerging Community Practice

The relevance of digital storytelling to community practice is rooted in the rapid proliferation of ICT throughout the world and the resultant effects of globalization. While globalization offers long-term promise to the endeavors of community practitioners, substantial risks abound for the vulnerable populations of the early 21st century (Weil & Gamble, 2005). After several decades, ICT is only just now arriving at a place where technical and financial barriers to inclusion are falling, but there is still much work to be done if ICT is to be a useful and reliable tool for community development. In the preceding decades, and especially since the advent of the Internet, the traditional wielders of power – the wealthy, the “Global North”, men, Caucasians, policy makers, and, more recently, multinational corporations – have mastered the use of ICT as a tool in exercising that power. The moment is upon us for the excluded majority to begin to use ICT for its own empowerment. Digital storytelling provides a doorway to this opportunity by focusing digital literacy efforts through an experiential, collective, community-contextualized lens.

In Western society, where the production economy has fled to less-developed countries, the customer-service and information economies are booming. While the service economy depends on ever-expanding markets and capital, only the information economy shows promise of sustainability and the opportunity for widespread economic development, because every individual and community has access to information resources that are unique to their experiences. In Western society, digital stories are the units upon which the economically excluded can begin to climb into the mainstream economy.

In still-developing countries, these opportunities are not yet afforded, but ICT can still play an important role in their empowerment. In some countries, particularly in Asia, the production economy has moved to these societies precisely because their governments allow substandard working conditions that enable greater profit margins for multinational corporations. These stories must be told and brought to international prominence if those conditions are to change. In other countries, particularly in Africa, the extraction of natural resources by Western powers has wreaked havoc and death. These stories too must be told and brought to the attention of the world. In less-developed

countries, digital stories are the units by which the oppressed will be liberated – if only we can make good on the promise of globalization and hold those countries accountable.

The communities that stand to benefit the most from digital storytelling are the ones that have the fewest opportunities to do so. The onus is on us, as community practitioners and community informatics workers, to ensure that that does not remain the case.

The Need for Evidence-Based Research on Digital Storytelling

As one might expect from anecdotal sources, there is evidence that supports a positive correlation between ICT and gross domestic product. This has been found both for “advanced” countries like those in the G8 (Jalava and Pohjola, 2002) and for middle-income countries like South Africa (Breitenbach, 2005). Other researchers point out that ICT is not in and of itself a solution for economic and social problems, it must be accompanied by equitable public policies that support basic human needs such as education and health care (Gillis, 2002). Even so, there is some evidence that the introduction of the Internet in two poor, rural areas in Zambia effected social and economic benefits (Mweetwa & von Hoorik, 2007).

While there is evidence-based research on the role of ICT in economic development, that research becomes more scarce at greater levels of granularity or when dealing with less-developed countries. For instance, there seems to be a large amount of evidence about the general role of ICT in the United States’ economic growth during the 90s, but less research about the impact of ICT on specific geographic communities’ economic development during that time period. Even scarcer is evidence-based research on the role of digital storytelling in community economic development.

The barriers to outcome evaluation in this area are significant because such research would seem to require a multidisciplinary approach, with help from economists, information scientists, social workers, media specialists, communications researchers, and, ideally, the communities actually engaged in digital storytelling activities.

Community informatics is also a nascent field of practice that has yet to fully embrace digital storytelling as an intervention, much less produce a viable method of evaluation for digital storytelling programs in economic development efforts.

Appropriate Learning Methods and Teaching/Training for Digital Storytelling

Extensive Use of Hands-On Learning Techniques

It is nearly impossible to effectively teach ICT, or any technology, without the substantial use of a participatory, hands-on approach. While it is better to “show” than to “tell” someone how to use a component of ICT, it is better yet to immerse that person in an environment where they can have an active role in their own learning experiences.

Teaching technology is unlike many other areas that might be taught through less participatory methods. While there are surely hands-on ways to teach the multiplication table, I suspect its rote repetition is fairly effective in many circumstances. Rote memorization of a technological concept, on the other hand, does little to illustrate how a technology might behave in real life. For instance, we might tell someone who had never seen a computer before that a mouse is a “peripheral computer input device that responds to hand movements and allows a user to interact with various graphical and spatial elements displayed on a monitor.” This description, while accurate, doesn’t convey the actual experience of *using* a mouse. Using a mouse engages the senses in a way that helps a student to understand what its purpose is: she can see a pointer move across the screen in concert with her hand movements, she can feel the buttons give way beneath her fingers, and a mechanical click serves as auditory feedback that her actions have had an effect. The mouse is a simple example, but the analogy scales well for learning that involves other more complex technologies.

When teaching digital storytelling skills, every opportunity should be taken to make the lessons interactive and participatory, even if this is certain to lead to mistakes. Trainers should leave plenty of room for mistakes in media production exercises, as mistakes can often be as educational as doing something correctly; video and audio recording technologies offer a unique opportunity for student/teacher reflection about mistakes. Putting a video camera in the hands of an inexperienced student, before extensive formal training, may seem counter-intuitive. However, watching the resultant video and using any unexpected results as a trigger for discussion can greatly enhance the ability of a student to synthesize their actions. This provides a direct link between a

student's actions, the effects of those actions, and contemplative reflection on ways to improve.

Using Popular Education Methods

While the informal activity of storytelling is usually an intuitive process, the task of editing sounds, images, and texts together to tell a coherent story is not. Using media to tell a story requires a certain amount of media literacy, an understanding of how media work to produce meaning. An effective way to teach media production and digital storytelling is to start with the stories and experiences of the students. By using a personal story already familiar and important to the student, she is better able to judge whether or not her finished digital product accurately communicates what she wanted to convey.

This approach also fits naturally into the context of community practice and the larger arguments of this essay. Castelloe and Gamble suggest that a

popular educator can be considered someone who helps groups of people in low-wealth and marginalized communities learn to use reflections on their daily experiences to analyze the social, political, and economic systems in which their communities are embedded. Popular educators also assume that the skills and knowledge that people have gained through their life experiences can provide the foundation for creating significant community change. (2005, p. 262)

The potential to create community change is a motivating factor in digital storytelling learning. Often educational objectives in traditional learning environments are divorced from their applications. In digital storytelling training, a student's desire to communicate an important message or the need for change becomes part of the educational experience.

Phased Approach

While the technical knowledge required to produce a digital story is not as high as it once was, a phased approach to digital literacy can still be helpful. Frank Odasz suggests four phases of "Internet Self-empowerment" in his training guide *Echoes in the Electronic Wind* (2000). Kevin Tharp and Liz Hillis summarize these phases:

- *Level One: Self-Directed Learning.* This level is mostly concerned with the basic skills necessary to use the computer, the Internet, and other Information and Communication Technologies (ICT).

- *Level Two: Self-publishing Globally.* Applying and enhancing the Level One skills, people become contributors to the content in addition to being just consumers.
- *Level Three: Building Learning Communities.* This level makes use of shared experiences focused around group processes of learning, teaching, and sharing.
- *Level Four: Citizenship and Enlightened Expectations.* This is reached when an individual or group has integrated the technology into their lives to a point where they are prepared to make a difference in their living, their interactions, their expectations and their governance. (2003, p. 43)

Again, when teaching digital storytelling skills, each of these phases should allow time for ample group reflection and discussion of the media being created.

Major Roles and Practice Models

There are two models that seem especially helpful for the consideration of digital storytelling in CI: *Community Social & Economic Development* and *Neighborhood & Community Organizing*. While technology, as a globalizing force, will significantly impact *all eight* of the community practice models, the scope of this essay is mostly concerned with the discrete approaches offered by these two models. The charts below offer typical characteristics of the models (Weil & Gamble, 2005), followed by the ways in which digital storytelling/CI figure into those characteristics.

Potential roles of the community informatics practitioner include mentor, leader, developer/innovator, spokesperson/communicator, evaluator/researcher, coordinator, and educator/coach. As found in CI, these roles are similar to my previous discussion of them in *Community Media Centers as Communities of Interest*.

Community Social and Economic Development

	Desired Outcome	System Targeted for Change	Primary Constituency	Scope of Concern	Social Work Roles
Community Social & Economic Development (community practice model)	Initiate development plans from a grassroots perspective; prepare citizens to make use of social and economic investments	Banks; foundations; external developers; laws that govern wealth creation	Low-income, marginalized, or oppressed population groups in a city or region	Income, resource, & social support development; improved basic education and leadership skills	Negotiator Promoter Planner Educator Manager
Digital Storytelling in Community Informatics Practice	open creative livelihood opportunities; development of social entrepreneurship; decrease technical barriers to the information economy	ICT policy; neoclassical economic systems; informal economic organizations	Marginalized population groups engaged in the production of their livelihoods	Access to capital in the information economy; digital literacy; leadership and job skills	Researcher Evaluator Trainer Coordinator Mentor Team Builder

Neighborhood and Community Organizing

	Desired Outcome	System Targeted for Change	Primary Constituency	Scope of Concern	Social Work Roles
Neighborhood & Community Organizing (community practice model)	Develop capacity of members to organize, change the impact of negative planning and external development	Municipal government; external developers	Residents of neighborhood, parish, or rural county	Quality of life in geographic area	Organizer Facilitator Educator Coach
Digital Storytelling in Community Informatics Practice	Qualitative understanding of communities; community cohesiveness and solidarity; civic engagement; ownership and leverage of community knowledge; collective storytelling	Local leaders and external developers that lack qualitative understanding of communities	“Invisible” neighborhood, community, and village members	Community quality of life; understanding, critiquing, and drawing attention to the unique social, economic, and environmental conditions of a community	Trainer Mentor Facilitator Coordinator Team Builder Advocate Coach

Best Practice Methods

While technology offers enormous promise, it also offers substantial pitfalls that may not be obvious to the uninitiated. One of the major roles of community practitioners who wish to employ ICT - and the Internet specifically - will be to help navigate these pitfalls and coach others to recognize and practice safe online behavior. Online safety is especially important in any work involving youth. Two major areas of concern are *intellectual property* and *privacy and identity*.

Intellectual property.

The digital age has brought about a change in the way we create, distribute, and use intellectual property. Any digital artifact that is publicly accessible online can easily be copied without the author's consent, but with possible legal ramifications. This can be problematic for the community storyteller in two ways. First, we must be careful that any resources found online (text, video, audio, pictures, etc.) are used responsibly in digital storytelling projects. Second, the authors of digital stories should be aware that it is hard to ensure their digital products will only be used according to their desires or desired contexts.

One approach to best practices in this realm involves the use of the Creative Commons (CC) license. The CC license “offer[s] creators a best-of-both-worlds way to protect their works while encouraging certain uses of them — to declare ‘some rights reserved’” (Creative Commons, 2008). By using only CC licensed media in digital stories, communality members avoid potentially litigious situations.

Privacy and Identity

Identity becomes very fluid online. Without face-to-face interaction, it becomes hard to know if someone is really who he or she claim to be. In fact, the temptation to alter our identities or to create entirely new ones is a phenomenon that must be addressed by community informatics trainers.

Partly because identity is so fluid online, real pieces of information about us can be very valuable to people or organizations that want to use that information for nefarious purposes. Once information like phone numbers, social security numbers, addresses, and

account numbers are carelessly released into the online stream, there is virtually no way to regain control of that data. Part of the ICT educator's role will be to educate users about the challenges of privacy and identity online.

Reflections on In-class Presentation

During the skill-sharing presentation that accompanied this paper, I attempted to broadly make the case that digital storytelling can be applied in a number of ways in community practice.

There were a number of limitations and shortcomings of the exercise:

1) Interacting with the Internet in a group setting can be awkward. The Internet is a medium usually designed for one-on-one interaction by a user in front of a screen. It is a medium that requires interactivity, but that interaction can be clumsy when more than one person is trying to interact with a single screen, as was the case in our class. This clumsiness was mitigated by technologies designed to facilitate classroom interaction, namely a large, touch screen SmartBoard and a wireless keyboard. However, even these technologies have limitations. For instance, our class had trouble using the unfamiliar keyboard. The development of technologies that enable fluid small-group interaction with the Internet could represent a major advancement in CI.

2) I failed to mention the importance of face-to-face interaction. This seems underscored by the previous point. When using digital storytelling for community development, it is important not to miss opportunities to foster face-to-face relationships. Technology is just a tool; it should never be assumed that the best or only way to foster the story economy is digitally. The specifics of story construction and distribution should be decided with an eye to the desired outcomes: will a VoiceThread slide show be most effective for accomplishing a community's goal, or would it be better served by a PhotoVoice-style exhibit and discussion? Often, the most effective storytelling projects will incorporate physical, real-world components *and* digital, virtual components. It is difficult to find a substitute for the experience of the gathering of a community to view and discuss photographs by and about themselves. It is similarly difficult to match the power of digital distribution if a community is trying to make its voice heard.

3) The group exercise was time-intensive. I'm not sure that the exercise could have been any shorter without cutting short some of the discussion, so the question of time is not a problem so much as it is a consideration. Of course, this exercise was also intended to merely be a model for much longer, more in-depth community storytelling projects.

4) It is difficult to teach technology to groups. As a Media Technician in the Communication Studies Department for the last three years, I have had experiences with trying to teach various technical skills in a classroom setting and in one-on-one scenarios. Invariably, I feel more effective (and less performative) in the situations where I have the opportunity to interact one-on-one with a student. Most educators recognize the importance of shrinking the teacher-student ratio, but this seems especially important where technology is involved. Frequently, there are physical, sequential actions that have to be taken in order for a piece of technology to work properly. These actions can be difficult to model in a group setting, as we saw when members of our class had difficulty saving their selected images to the computer's desktop even after I demonstrated how to do it.

5) Discussion and feedback quality were high. I was very happy with the level of engagement that the class offered during and after the exercise. There were signs that some of my classmates would use the tools outside of class; two students asked for more help using Google Pages. One student emailed me to thank me for the presentation. The discussion in class was rich, both in the discussion of 'community' by using the image "triggers" and in the discussion of the tools themselves.

Conclusion

While much research needs to be done to validate digital storytelling as a community development tool, it is, at the very least, a promising option for practitioners in the field of community informatics. It represents an opportunity to use the unique knowledge and experiences of a community as a doorway into the information economy while *simultaneously* increasing individual, household, and community access to social bases of power that enable empowerment and higher quality of life. Such online endeavors require the navigation of risks particular to ICT use, and so will require careful

planning and well-trained mentors to avoid the exploitation of already vulnerable populations. When dealing with populations that have had limited exposure to ICT, a collaborative, hands-on, experiential, and phased approach allows students to have an active role in the production of their learning experience. Any digital storytelling training should also seek to *increase* face-to-face time for community members, not to use ICT as a substitution for interaction.

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