

Exploring Methods in Community Informatics (poster)

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Poster Abstract

Community Informatics (CI) is an emerging field of study, practice and activism that has grown in popularity and influence in recent years. As an academic discipline CI is typically situated within iSchools and provides an important venue for their connection to community knowledge, educational practice, and social justice movements [1]. The term was originally brought into popular use by Loader and Gurstein in the late 90's and contrasted in relation to the overarching study of social informatics, which at the time was mostly concerned with business and government connections to information technologies [2]. As ICT's and cultures embedded in our information society have evolved, however, the lines between community, institutional, and individual ICT cultural practices have blurred; no longer can public computing be conceptualized as just a machine at the local library or can digital divide power inequities be cast as a simple lack of access to information. As result community informatics has become widely interpreted in terms of research, theory, methods and places of application.

This has given rise to a need for continued discussion over the definition and application of methods in community informatics. Our poster seeks to provide representation of some of the methodological perspectives encountered in a few projects of the Community Informatics Initiative (CII) [3], a research and teaching center and associated curriculum that is part of the Graduate School of Library and Information Science at the University of Illinois at Urbana-Champaign. Our work is far from conclusive, but instead intended to be a starting point for discussion about

theories and examples of CI methods in action. Specifically, we address:

Participatory Action Research

Our toolbox is one of pragmatism and progress (that is, we not only believe in solutions, but hold them to be essential), typified by studies which are conducted *with* the community (collaboration and partnership), *for* the community (giving voice and ensuring everyone gains from insights and reaps the rewards) and *by* the community (citizen scientists and community member-led projects). In effect our work is interdisciplinary, multi-method and inherently critical: a diverse and flexible portfolio of what works, involving deductive and inductive techniques and data collection ranging from ethnography to statistics to content analysis to social network modeling. The overriding principle behind our research efforts is an ethical commitment to positive outcomes for the communities involved as well as individuals and our greater society as a whole. This drive rests on the assumption that the production of knowledge that happens in communities should help to drive the production of knowledge and systems of analysis or study present in universities. Further, most PAR adopters see research as subservient to community needs; if we walk away from a research project without significant or sufficient data but still leave the community better off than they were before, then we usually consider the effort to be a success. If you take this set of traits you find a tool set and perspective that's potentially independent of both information science and institutions. CI thus becomes more than just an emerging field, but a set of convictions, actions and ways of integrating ethics and agency into ones world view as an actor - be they a researcher, activist, policy-maker or in some other role.

Community Inquiry

Community inquiry presents an effective and appropriate informative model for CI. Professor Chip Bruce provides a compelling explanation:

“Community inquiry is inquiry conducted of, for, and by communities as living social organisms. Community emphasizes support for collaborative activity and for creating knowledge, which is connected to people’s values, history, and lived experiences. Inquiry points to support for open-ended, democratic, participatory engagement. Community inquiry is thus a learning process that brings theory and action together in an experimental and critical manner.” [4]

This definition features significant overlap with the PAR perspective presented above and draws upon John Dewey’s rich conception of inquiry. It stresses addressing community-defined problems by building upon pre-existing local resources and knowledge and necessitates reflexivity - a questioning of community membership, values and goals - by representing the process as a cycle. This cycle is visually represented as a dynamic process of asking questions, performing investigations, creating understandings, and discussing and reflecting on them.

Cyberpower

As sites of public computing and potential places for community organization many libraries, civic centers and social service agencies have evolved in to what might be referred to as ‘Community Technology Centers’ or CTC’s. Alkalimat and Williams [5] propose that CTC’s may be a primary “organizational basis for democracy and social inclusion in the information society.” [5]. Citing Tim Jordan [6], an STS researcher who was one of the first to critically pioneer the emerging landscape of culture, politics, power and inequality on the web and in information society at large, they explain that Cyberpower, “the effect of online activity on power” [5], is a potential measurable outcome from CTC’s for individuals, groups and on an ideological basis. Cyberpower can be operationalized through a variety of metrics, such as valuable skills, experiences and accumulate social connections (in the case of Alkalimat and Williams, social capital), though always with a focus on an increase in an individual or group’s ability to influence or address issues related to their needs. Ultimately Cyberpower suggests an emphasis on providing disempowered individuals more than just access to online activities and technology resources, but critical and creative perspectives that allow them to shape both the use of such tools and related behaviors and gain more control over their participation in our emerging information society [7]. This becomes a potential refutation of the critique that the employment of ICT’s for development (ICT4D) is simply another project of digital capitalism and way to plug more poor people into consumerism and increase existing power disparities [8].

This trio of perspectives is a slice of the informative basis and interpretive framework behind methods present in community informatics. Our poster proceeds to present example CII projects related to each, which feature *integrative strategies* (storytelling with multimedia, relationship building, community memory, continuing education, and knowledge sharing), *future and current settings* (Sao Tome Africa, small town and rural CTC’s, schools and libraries, and the local CU community), and *diverse audiences* (both children and adults, volunteers and CII staff, as well as community leaders).

Examples

We overview a set of Community Informatics projects, ranging from completed to in-planning stages, including:

Social and Environmental Justice On the Fifth and Hill Toxic Site

The problem is not new: a toxic site in the middle of a residential community, and an ongoing dispute between neighborhood activists and a large corporation about the health hazards it poses. The situation present in North Champaign is only a symptom of larger problems of social injustice related to race, health and corporate responsibility. It is no coincidence that the mostly African-American neighborhoods are poor nor is it particularly surprising to find that the issue of environmental injustice sits alongside problems of poor relations with law enforcement, and lack of adequate support from local government. This project involved the use of mapping and new media communication technologies to present many of the environmental and health issues present in North Champaign.

Future Directions in Community Technology Center Research

Community technology centers, small libraries and non-profit organizations all struggle to manage their technology assets. Issues of digital literacy, external threats like computer viruses, rapidly changing hardware and burgeoning software options make today’s IT environment difficult to navigate, even for experts. To meet this challenge, 21st century organizations require effective and robust management systems and education strategies that can deliver a variety of functions and positive outcomes. This semester long study focused on prototyping dynamic, web-based solutions for these challenges. They included:

- A dynamic inventorying system that tracks the ‘health’ of computers, and is capable of transmitting technical information to system administrators in the event of failure. IT administrators can access software and hardware information for each asset, quickly and easily.

- A geographic information system which helps visually organize the location of community technology centers in a city or region. GIS tools also enhance the overall situational awareness of organizations.
- A knowledge-sharing system to allow community help-desk organizations to disseminate critical information and improve training efforts. These type of systems help connect experts with beginners, and foster relationship building at all levels of the organization.
- Use of the Wordpress Content Management System (CMS) for truly community-driven web resources.
- Web-based technology training guides and tutorials designed to be modular, multimedia and most importantly, empowerment oriented. They not only teach essential digital literacy skills but also encourage relevant and critical use of technology through active and contextualized learning.
- A customized Linux install built specifically to support community technology education needs, which was combined with guides and documentation for ensured sustainability.

In addition we explored the possibilities of CTC-based education programs in a digital learning series for kids that included *Storytelling in [Stop] Motion* and *Comics and Community Stories*.

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