What is Community Informatics? A Global and Empirical Answer

Kate Williams, Shameem Ahmed, Noah Lenstra, Qiyuan Liu
Graduate School of Library and Information Science,
University of Illinois at Urbana-Champaign, USA
katewill@illinois.edu, ahmed9@illinois.edu, nlenstr2@illinois.edu, i@liuqiyuan.com

ABSTRACT
Various definitions of community informatics have been advanced [1, 2, 3], each relatively prescriptive but all centered on the interaction between local, historical community and either information or information technology. The IT revolution continues to unfold and intersect in new ways with local communities, leaving the field in a state of flux. We are carrying out a systematic collection and analysis of the literature in order to obtain an empirical (rather than prescriptive) definition of the field. Moreover, librarians and LIS scholars participated in early "community information systems" work [4, 5], but what role do they play today? To the best of our abilities, we are seeking global rather than country-bounded answers, and we invite others to join us in order to complete this task.

Table 1. The collection-in-progress of community informatics journal articles.

Discipline	Journal	Published in	Scanned	Articles
Social Informatics/Community Informatics	New Media and Society	US/UK	1999-2011	98
Social Informatics/Community Informatics	First Monday	US	1996-2011	74
Social Informatics/Community Informatics	Information, Communication, Society	UK	1998-2011	70
Social Informatics/Community Informatics	Journal of Community Informatics	Canada	2004-2010	62
Information Technology and Development	Information Technologies and International Development	US	2003-2011	50
Social Informatics/Community Informatics	The Information Society	US	1990-2011	42
Library and Information Science	Journal of the American Society for Information Science and Technology	US	1990-2011	39
Library and Information Science	Public Library Quarterly	US	1990-2011	21
Information Technology and Development	Information Technology for Development	US/UK	1990-2011	18
Management Information Science	Management Information Systems Quarterly	US	1990-2011	12
Management Information Science	Journal of Management Information Systems	US	1990-2011	11
Museums/Public History	International Journal of Heritage Studies	UK	1997-2011	9
Management Information Science	Information Systems Research	US	1990-2011	8
Library and Information Science	Library Quarterly	US	1990-2011	8
Library and Information Science	Library Trends	US	1990-2011	8
Museums/Public History	Museum Management and Curatorship	UK	1990-2011	6
Archives	Archives and Museum Informatics	Netherlands	1990-2011	5
Archives	American Archivist	US	1990-2011	2
Sociology	Social Problems	US	1990-2011	2
Archives	Archivaria	Canada	1990-2011	1
Museums/Public History	Public Historian	US	1990-2011	1
Sociology	American Journal of Sociology	US	1990-2011	0
Sociology	American Sociological Review	US	1990-2011	0
TOTAL				547

Note: This collection will grow because scanning is in process of a third Information Technology and Development journal, Electronic Journal of Information Systems in Developing Countries, as well as 20 edited volumes of community informatics.

1. INTRODUCTION AND GOALS
As table 1 indicates, we are assembling a collection and reviewing 22 years (1990-2011) of peer-reviewed work that reports findings from around the world. Our goals are several:

1) to get a picture of community informatics as it actually exists and sum up findings thus far, in this way helping the field grow from a quasi-social movement or a community service endeavor into a respected academic discipline;

2) to find out to what extent the English language literature is in fact global, and identify any gaps that point to including literature in other languages;

3) to investigate to what extent community informatics differs from the field of information and communication technology for development (ICT4D);

4) to identify the place of cultural heritage and its organizations, including libraries, in this work;

5) to adapt a tool one of us (Liu) has built and used in China to carry out citation analysis of the articles themselves and map any distinct knowledge domains.

2. OUR APPROACH

The collection (like any) is necessarily finite and limited, but is systematically built. The team is just four people with specific expertise. Seven disciplines were identified and the three to five top journals in those fields, as described in print by English-speaking scholars, were selected. For each issue starting in 1990 or from the first issue, the tables of contents and abstracts were scanned to find articles that were empirical examinations of the interaction between one or more spatial (local, organic, historical) communities and their use of information technology. For instance, one article examines a village, and more specifically, the fishermen and women in that village [6]. Twenty edited volumes focusing on community informatics will also be included.

Our methods are 1) hand-coding based on a framework and 2) automated citation analysis. The framework is that community informatics involves up to four components: a) *local, organic, historical, communities* which generate b) *cyberpower* [7] by making use of c) *public computing* [8] and/or d) *cyberspace*. Cyberpower, or the ability to effect change using digital resources, may be used by local communities to advance social aims, or by outside forces, for instance to enhance capital accumulation and neo-imperial power [9]. We believe community informatics focuses more on the former, but we do not discount the latter.

Thus far the coding concerns the first of these four concepts, *community*. We are coding for the community setting (urban/rural), the country location, and any community institutions that are involved (non-profit organizations, local government, businesses, or higher education).

3. PRELIMINARY FINDINGS

We will report complete findings in the poster itself, but to demonstrate our approach, table 2 shows early results from coding 547 articles. (Table 1 reveals suggestive findings about each journal, but these must be tempered by the frequency and size of each publication.) Judging from their share of the world's population, North America and Europe are overrepresented in this body of work; take up of IT and internet must also be factored in, but gaps are suggested. Citation analysis may reveal that this bias is associated with most authors being are from these regions and working in those languages. Furthermore, he world is evenly split between rural and urban residents; but these papers focus very much on urban communities. Finally, our research attends to social capital as an influence on IT use [3, 9], and local institutions tend to represent important sources of social capital [10]. Non-profit organizations are the most common local organizations in these studies, and yet we know them to be mostly underfunded or even non-existent in some parts of the world. This has implications for sustainability of community IT.

We look forward to providing complete results at iConference as well as to working with other scholars. For instance, a colleague at Illinois is collecting the corresponding Chinese language literature. This project invites studies of other disciplines and of literatures in other languages.

Table 2. Preliminary coding of articles

Location

North America	221
Europe	133
Asia	116
Afria	65
Latin America	34
Oceania	34
Middle East	11
Diaspora	6
Total	**620**

Setting

Urban	414
Rural	86
Both	35
Unknown	2
Total	**537**

Local institutions involved

Non Profit Organization	218
Government	164
Business	124
Higher Education	107
Total	**603**

Note: Totals are preliminary and do not all add to 537 because some articles include more than one category.

4. REFERENCES

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