A Community Informatics Approach to Libraries and the Digital Divide

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Community informatics

A field rooted in libraries but also in the digital revolution, the information revolution

http://www.flickr.com/photos/jimfischer/
Community informatics

A field rooted in libraries but also in the digital revolution, the information revolution

Local, historical communities + Information and communications technologies digital tools

CONTINUITY meeting

TRANSFORMATION
Three studies from the CI Lab

1. Public access computers: Libraries bridging the digital divide
2. Technology Opportunities Program: The library experience with a major funding opportunity
3. Cybernavigators: Towards a new library staff
1. Public access computers in the library as bridges across the DD
Tracking the arrival of public computing in US public libraries

Public Library Internet Connectivity 1996-2007

Percentage Connected

System
Outlet


1996: 44.6%
1997: 72.3%
1998: 83.6%
2000: 95.7%
2002: 98.7%
2004: 99.6%
2006: 99.7%
2007: 99.7%
How do libraries as public computing places bridge the digital divide?
How many public access computers in each branch library?
“Them that’s got, shall get”
—singer Billie Holiday
2. Technology Opportunities Program (1994-2005): The library experience with a major funding opportunity
TOP 1994-2005: $230 million

<table>
<thead>
<tr>
<th>606 TOP projects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Led by...</strong></td>
</tr>
<tr>
<td>Community based organizations 26%</td>
</tr>
<tr>
<td>Colleges or universities 25%</td>
</tr>
<tr>
<td>Local governments 21%</td>
</tr>
<tr>
<td>Health providers 8%</td>
</tr>
<tr>
<td>Schools 5%</td>
</tr>
<tr>
<td>Foundations 4%</td>
</tr>
<tr>
<td>Libraries 3%</td>
</tr>
<tr>
<td>Other 8%</td>
</tr>
<tr>
<td><strong>Technology as...</strong></td>
</tr>
<tr>
<td>Applications provided, used or developed 46%</td>
</tr>
<tr>
<td>Equipment 42%</td>
</tr>
<tr>
<td>Training 12%</td>
</tr>
<tr>
<td><strong>Involving...</strong></td>
</tr>
<tr>
<td>Computing in public 64%</td>
</tr>
<tr>
<td>Computing in workplaces 25%</td>
</tr>
<tr>
<td>Computing at home 11%</td>
</tr>
<tr>
<td>Serving rural populations 40%</td>
</tr>
</tbody>
</table>

- Using technology to attacking local problems
- Partnerships were mandated
- Mobilizing local leadership or peer educators was a winning strategy
BTOP 2010-2012: $7.2 billion

- Technology use as the goal
- Sustainability the objective
- Emphasis on community institutions & public computing
- National discussion underway
- Locally, univ-two cities partnership
- New approaches to data: Government 2.0
Libraries from across the US won 25 TOP grants
Our primary data is text generated by the projects – repurposed for research

- Summaries
- Proposals
- Quarterly reports
- Final reports

<table>
<thead>
<tr>
<th>Library and Location</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Columbia College, Washington</td>
<td>146 pages</td>
</tr>
<tr>
<td>Queens Borough Public Library, New York</td>
<td>104</td>
</tr>
<tr>
<td>New York Public Library, New York</td>
<td>82</td>
</tr>
<tr>
<td>Bowling Green Public Library, Kentucky</td>
<td>78</td>
</tr>
<tr>
<td>Public Library of Charlotte and Mecklenburg County, South Carolina</td>
<td>26</td>
</tr>
</tbody>
</table>
Five TOP library projects

• Lower Columbia College – Established education centers in two poor counties. Provided workforce training, language classes, high-school-equivalency education.

• Queens Borough PL – Started branch-to-branch teleconferencing. Queens Botanical Garden and others helped with programming.

• New York PL – Established an online community with resources for local businesses. Provided workshops on business topics.

• Bowling Green PL – Created a branch in an abandoned train depot in a poor neighborhood, with computer lab. And an online source for local info and resources.

• PL of Charlotte and Mecklenburg County – With a children’s theatre organization, taught poor youth to use technology to express themselves creatively.
Preliminary findings

✓ Libraries do their thing, and more. Libraries here are using technology to extend their activities.
  o More outreach, more formats
  o Shifting from patrons using information resources to patrons creating resources

✓ Patterns to the partnerships
  o Technology-building projects tend to have telecom partners
  o Social and educational projects tend to have other community organizations as partners

? Do the partners imply power imbalances that affect project outcomes? We’ll find out by:
  o Studying the history of the libraries before and since the projects (by literature and news article searches)
  o Interviewing project leaders still at the libraries
3. Cybernavigators: Towards a new library staff
Libraries are helping patrons in new ways
The reference interview 1960s, the informatics moment 2000s

Public Library

Reference librarian

Cybernavigator

Patron

Computers

Ages

Cultures

Economics

Community

Hello

Wussup

Spanish

French

Italian

English

Pease
## Informatics moment: a leap across the DD

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Literacy</th>
<th>Computer literacy</th>
<th>Advanced computer literacy</th>
<th>Library literacy</th>
<th>Functional activity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Daily</strong></td>
<td></td>
<td>using the mouse or browser, getting or using email</td>
<td></td>
<td>printing, computer reservations</td>
<td>searching for work, applying for jobs</td>
</tr>
<tr>
<td><strong>Weekly</strong></td>
<td>writing reading</td>
<td></td>
<td>producing or updating a document besides resume, doing research, using other government websites besides benefits, using social networking sites</td>
<td>using the library catalog, using library databases</td>
<td>producing or updating resume, doing homework, getting or checking benefits</td>
</tr>
<tr>
<td><strong>Monthly</strong></td>
<td>taking a computer class</td>
<td></td>
<td>playing a game</td>
<td></td>
<td>looking into current events or cultural information, getting health information, banking/buying/selling/other e-commerce, seeking resources relating to being homeless</td>
</tr>
<tr>
<td>Frequency</td>
<td>Cybernavigator social capital</td>
<td></td>
<td></td>
<td></td>
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<td>------------</td>
<td>---------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Daily</td>
<td>CN helps someone who knows his or her name</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>CN helps someone he or she knows by name</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>CN helps someone he or she recognizes but don’t know by name</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Weekly</td>
<td>CN helps someone that a community member referred to him or her</td>
<td></td>
<td></td>
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<tr>
<td>Monthly</td>
<td>CH helps a group of 2 or more working together on a task</td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>CN helps someone he or she knows from some community involvement</td>
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<td></td>
<td>CN brings their own laptop to work</td>
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<tr>
<td></td>
<td>CN shares his or her own laptop with patron as part of help</td>
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</tbody>
</table>

Social ties are at play here
More social capital > more kinds of IMs

1. Challenges: Printing, reservations, no flash drives, word processing in the browser
2. Challenge: teaching people mouse exercises not as effective as a game of solitaire
3. Many successful job hunts
4. Valuing a box of old money using eBay
5. Huddled around a laptop in Chinatown
6. “I’m just a step ahead”
7. Help, and conflicts over help: the dislocations of the information revolution in the library
Thank you for listening, thank you in advance for questions

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