Aging in the Information City

Noah Lenstra
nlenstr2@illinois.edu
Outline

• The topic and its importance
• Theory and methods applied
• Findings
  Stage 1 & 2: Cybernavigating workshops
  Stage 3: Cybernavigating embedded in infrastructure
• Discussing aging / older adulthood in information cities
<table>
<thead>
<tr>
<th>Percent of humanity that is...</th>
<th>in 1965</th>
<th>in 2015</th>
<th>in 2050</th>
<th>in 2100</th>
</tr>
</thead>
<tbody>
<tr>
<td>age 0-14</td>
<td>38%</td>
<td>26%</td>
<td>21%</td>
<td>17.9%</td>
</tr>
<tr>
<td>age 60 or more</td>
<td>8%</td>
<td>12.2%</td>
<td>21%</td>
<td>27.5%</td>
</tr>
</tbody>
</table>

*Table 1. World population aging. (United Nations, 2013)*
“In 2007, one of every five persons was 55 years or older, or over 68 million people. The aging of the ‘baby boomers’ will add to these numbers well into the next decade, and the lengthening of the average lifespan is creating several generations of older adults at a time that the U.S. has become more ethnically and linguistically diverse.

As a result, the current population of older adults is the most heterogeneous in U.S. history.” (American Library Association Guidelines for Library and Information Services to Older Adults, 2007)
Studying aging in the information society

Difficulties older adults have learning digital technologies commonly framed as based in their declining minds or bodies (Bowen, 2012)

This research starts in a different place: Local communities
Studying aging in the *ageist* information society

“Older adults ... refused to use a device they see as stigmatizing, even if they comprehend the benefits of using a device” (Birkland & Kaarst-Brown, 2010, 348)

“You don’t see grandma dancing with an iPod, for example -- and the message that technology is for the young is something that many older adults seem to have internalized” (McKee & Blair, 2006, 25)

“One prominent barrier to engaging with ICTs included the belief that the internet is the preserve of the young and how they were now ‘too old’ to use ICT” (Formosa, 2013, 25).
Photo on left courtesy Patricia Rosario.
Witnessing older adults in their communities

“The elderly are more than custodians of heritage. They are people in their own right, active in the present, and experts on what this period in the life cycle is all about.

They are not only witnesses to what once was, they are also individuals with a profound need to be witnessed.”

(Kirshenblatt-Gimblett, Authoring Lives, 1989, 138)
Theory: Cybernavigating / Informatics moment

Methods of study

Case study
“Case study research analyzes: “a real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information (e.g. observations, interviews, audiovisual material, and documents and reports), and reports a case description and case themes.” (Creswell, 2012: 97)

Extended case method
“Each social situation [is] unique .... the extended case method pays attention to its complexity, its depth, its thickness. Causality then becomes multiplex, involving an ‘individual’ (i.e. undividable) connectedness of elements, tying the social situation to its context of determination.” (Burawoy 1991, 287)
Stage 1: Seniors & Technology Workshop (February 2014)
• Students in LEEP “LIS502: Libraries, Information and Society” lead two-hour, one-on-one cybernavigating sessions with 40 older adults at public library. Students record their observations about workshop.
• At the end of the workshops older adults answer some questions about how the workshop went and about their backgrounds.

Stage 2: Older adults videochatting study (May 2014)
• Students work alongside community leaders to help 30 older adults learn videochat technology in one-hour cybernavigating sessions.
• Older adults answer questions before and after workshops.
• Researchers take fieldnotes about workshops.

Stage 3: Dissertation fieldwork / LIS518 (Fall 2014 - ongoing)
• As PhD candidate and Community Informatics TA, I conduct fieldwork alongside students in naturalistic settings of public library and senior center cybernavigating to learn to what extent how this community-based information infrastructure supports older adult digital literacy
We ask three questions in this research

1. Can student volunteers positively impact the technology skills & attitudes of older adults?
2. Does digital technology & literacy improve older adult quality of life?
3. To what extent and how does community-based information infrastructure support older adult digital literacy?
We find answers through cybernavigating.
22. Tell a story (or stories) about help that you gave. Describe in detail who you helped, what they did, what you did—how it went.

23. What advice would you give for future help sessions?

I was very lucky today because both of my participants brought devices which I was familiar with, but I think it would be very helpful to try and match devices by type of technology rather than leaving it to chance.

7. On the same scale, how happy have you been during the last week? 1 2 3 4 5 6 7 8

8. How would you describe your ethnicity? [circle all that apply]

9. Are you retired? (If yes, before you retired what was your job?) (If no, what is your current job?)

10. If you don’t mind me asking, how old are you?

11. [Don’t ask, but make a note of their gender and circle one.] Male or female

Ok great, thank you! We’ll get started soon.

Researcher notes

(add additional information gleaned during Questionnaire 1 that did not fit into questions)

Do you own or have access to any other digital devices besides the ones I just mentioned to you? Yes No Which?

Do you own or have a computer, a tablet or a phone? Which ones? [circle all that apply]

Computer

Digital camera

“Smart” phone

Basic cell phone

Tablet computer (iPad, Kindle, etc) Is outdated

Other—which:

Do you own or have access to any other digital devices besides the ones I just mentioned to you? Yes No Which?

Do you remember the first digital device you ever used? Yes No Please tell me about it.

Yes, a cell phone

How did you learn to use it?

Just followed the instructions, I don’t use all of the options

What did you use that device for?

Call people, emergency, out of town

Have there been any periods in your life in which you stopped using digital devices, or have you constantly used digital technologies since you first started using them?

Stopped

Constantly used

[If “Stopped”] Why do you think you stopped using them? I couldn’t get it to work, out of sight out of mind.
Findings from students

“We wanted to get library books on her iPad, so [we] got the 3M app and entered her library-card info. I had to call the library for help and they were ever so helpful -- the delightful moment when the book son the screen appeared was awesome, and I even felt thrilled! Also hearing that she was less intimidated was so satisfying!”

“She loved when I empathized with her on particular challenges -- a 20-something can be confused when using ICTs, too! When she shared her method for creating and remembering passwords, I wrote it down and thanked her multiple times for the tip! (It was really great). we also had a great chuckle over Facebook. We hugged at the end.”
Findings from older adults

Fig. 1: Ages of participants in Stage 1 and 2.
Older adults have many digital tools, but not so much support

<table>
<thead>
<tr>
<th></th>
<th>Phone(s)</th>
<th>Computer(s)</th>
<th>Audio-Visual(s)</th>
<th>Tablet(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All (n=54)</td>
<td>91%</td>
<td>83%</td>
<td>54%</td>
<td>44%</td>
</tr>
</tbody>
</table>

Technologies participants have available at residences

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
</tr>
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<tbody>
<tr>
<td>All (n=52)</td>
<td>42%</td>
<td>58%</td>
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</table>

Do participants have someone they can turn to for tech help.
Tech workshops generate happiness, and one-on-one key to success

<table>
<thead>
<tr>
<th></th>
<th>Week prior</th>
<th>Immediately before</th>
<th>Immediately after</th>
</tr>
</thead>
<tbody>
<tr>
<td>All (n=30)</td>
<td>8</td>
<td>8.6</td>
<td>9.2</td>
</tr>
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Participant happiness, on scale of 1-10.

<table>
<thead>
<tr>
<th></th>
<th>1-on-1 better</th>
<th>More comfortable</th>
<th>Best one</th>
<th>First one</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>All (n=31)</td>
<td>42%</td>
<td>23%</td>
<td>16%</td>
<td>13%</td>
<td>3%</td>
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</tbody>
</table>

How did workshop compare to past tech workshops?
Digital disengagement: Many drop ICTs and then have to catch up

<table>
<thead>
<tr>
<th></th>
<th>Constantly used</th>
<th>Stopped</th>
</tr>
</thead>
<tbody>
<tr>
<td>All (n=29)</td>
<td>52%</td>
<td>48%</td>
</tr>
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Pattern of older adult tech use

<table>
<thead>
<tr>
<th></th>
<th>Getting started</th>
<th>Internalizing process</th>
<th>Age-related disability</th>
<th>Language / concepts</th>
<th>Skills transfer</th>
<th>Technical difficulties</th>
</tr>
</thead>
<tbody>
<tr>
<td>All (n=52)</td>
<td>48%</td>
<td>31%</td>
<td>6%</td>
<td>6%</td>
<td>6%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Participants biggest challenge at workshops
“[I] quit using technology when I retired in 1986 [from a job as a court clerk and stenographer]. I used the mainframe [computer] at Champaign county on the job, one of the very first ones. I took classes at the U of I [University of Illinois] learning to program, you would say, tapes and key punch way back when. I learned how to wire a mother board. The professor drew diagrams and we put it together, in the back of employment offices at night in early 1960s. But I lost track [of how to use technology] when we switched from mainframes to PCs. I took [computer] courses in the mid-90s and early 2000s and still have notes from those classes. [The] desktop [I use] was bought in 2000. It has XP.”

88-year old African-American woman who has lived her entire life in Champaign-Urbana and who continues to use technology
Findings from CI alumni working in public libraries

“[At the public library where I work], I started teaching seniors ... who in general were very concerned about privacy on the internet. We would spend a long time just talking about what the internet is, how you can be safe, why you don’t have to worry. We ended up speaking more philosophically than technology, but that helps too, because they were very nervous about even having an email account.

“[This work] wasn’t part of my job description. It did not say ‘Save two hours a week for individualized attention to a specific group of people.’ So that wasn’t expected from my boss or anyone else, it just happened.

“The groups of people I serve are constantly changing, but the thread that keeps them together is that they are community members with a need and I fulfill it or find a way to help. When more than one person has the same need an idea is formed and we start brainstorming: ‘How can we make this part of our public library job, because lots of people are asking.’ This could be more computer training, more digital media lab tools, or even just more large-print books on the shelves to help those readers who need it.”
Overall findings from stages 1 & 2

Older adults engaged in information society

The case of “older adults learning technology” illustrates that cybernavigating needs emerge multiple times throughout life.

That is, digital literacy requires ongoing support, and sustainable cybernavigating may provide this support.

Extending theory:

Cybernavigating => Cybernavigating infrastructure

Cybernavigating infrastructure already exists, but needs to be better understood, not just to support the digital literacy of older adults, but for everyone.
The Community Informatics of an Aging Society: A Comparative Case Study of Public Libraries and Senior Centers

**RQ:** To what extent and how does community-based information infrastructure support older adult digital literacy?

Public libraries and senior centers constitute “community-based information infrastructure”

11,400 senior centers in United States
16,415 public libraries in United States
Cybernavigating infrastructure of aging communities = At-risk infrastructure

“In the typical arena of organizations and agencies providing services to older adults, technology programming often plays a marginal role (i.e., a service appended to providers core competencies such as meals provision and case management and provided through volunteer or non-specialist staff). As a consequence, technology programs are often delivered in fragmented, or ad hoc fashion, and falter due to erratic staffing, inappropriate curriculum, technology breakdowns, poor funding, and limited capacity.” (Gardner et al., 2012)
Table 3: List of sites in this dissertation, including the funding entities and community groups that play a role in their direction and programming.
Vectors of comparison

**INSTITUTION**

Institution type
- Age-specific: Senior center
- Age-neutral: Public library

Municipality
- Population 41,250: Urbana
- Population 82,517: Champaign

System type
- Public library
- Park district

Type of public sphere / third place
- Public sphere
- Counter-public sphere

**INDIVIDUAL**

- Gender
- Race/Ethnicity
- Age
- Social class
- Background with technology
The goal: Information cities
Thank you!

Noah Lenstra
nlenstr2@illinois.edu