

CI Lab Notes

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Seniors in the Digital Age and Those Who Serve Them: 10 Lessons from a Doctoral Dissertation

By Noah Lenstra

This month the Community Informatics Research Lab graduated its first University of Illinois PhD student. Others have completed their PhDs in China after just one year in the lab, but Noah Lenstra was part of the lab for seven years as a masters, certificate of advanced study, and doctoral student.

Noah's background reading and one full year of field work at six local sites resulted in new ideas and practical findings. Before he leaves this summer to join the faculty of the University of North Carolina at Greensboro, Noah shared what he learned with community colleagues on Friday, June 24, 2016 from 4-5:30 pm at the Douglass Annex Senior Center, 806 N 5th Street, Champaign. This CI Lab Note contains highlights for seniors, senior centers, libraries, will-be seniors, and the communities of which they are part.

For the full text of Noah's dissertation please see: Lenstra, N. (2016). "The community informatics of an aging society: A comparative case study of senior centers and public libraries." Doctoral dissertation, University of Illinois at Urbana-Champaign. Available online at <https://www.ideals.illinois.edu/>.



3. Our information society is unequal

Since the 1970s, the world has been transitioning from an industrial to an information society. In this new society, digital information technologies are increasingly woven into all aspects of life.

This information revolution has been an uneven one; as scholars Zorica Nedovic-Budic and Kate Williams (2013) point out, “not every sector of society has crossed the digital divide” (p. 5). The exclusion of seniors from the information society has been called the *grey digital divide*. Although seniors increasingly use technology, they continue to use technology with less regularity than the general population.

4. Seniors lead their communities

Seniors not only use services created for them, they are also community leaders. Seven years of community informatics research on digital heritage in the eBlackCU.net project proved this time and again. Seniors are leading computer labs at two churches. Seniors are documenting and celebrating the stories of their community online. The digital practices of community elders suggest that better support for their digital literacy will help all seniors use technology to lead their communities in creative, unexpected ways.

5. Public libraries and senior centers support the digital literacy of seniors

There are roughly 12,000 senior centers and 17,000 public libraries in the US. As digital technologies spread everywhere, both institutions have started technology support programs.

Below is a snapshot of the technology support services offered in the local institutions studied. Each institution manages its services independently, doing its best to serve the digital literacy needs of seniors, and others.

	Tubman S.C.	Smith S.C.	Metro S.C.	Metro Library	Main Library	Branch Library
# of hours per week computers available	30	5	n/a	70	74	54
Staff offer tech help during open hours?	No	No	No	Yes	Yes	Yes
# of hours per week w/ technology volunteers	2	1	1	16	24	2

1. Researchers collect data and give back via “reciprocal research”

The principle of *reciprocal research* shaped this study. The staff of three public libraries and three senior centers allowed me to conduct research there because I offered services to the seniors they serve. I offered technology support services while carrying out my study. Similarly, seniors allowed me to study them because I was serving them and their communities.

The data I collected from September 2014 to August 2015 came from:

- 467.5 hours of fieldwork with
- 209 seniors learning technology;
- 54 interviews with seniors;
- 7 interviews with staff; and
- analysis of documents by and about the sites.

2. We live in an aging society

Percent of United States that is...	in 1960	in 2010	in 2050	in 2100
...age 0-18	36%	24%	23%	22%
...age 65 or more	10%	13%	21%	26%

U.S. population aging. (U.S. Census Bureau, 2010)

As the median age of the population rises, so do the stakes of this study. The core institutions of the modern age were built on the premise of a large number of youth and a small number of elders. This premise increasingly does not hold true. The U.S. Census Bureau (2010) estimates that by 2100 the percentage of the population aged 65 or more will exceed the percentage of the population aged 0 to 18.

6. Ageism structures tech support

The CI Lab has learned that everyone can help everyone else learning technology. This is the principle of *each one, teach one*. This mutual help is just what we need for everyone to use technology fluently in our information society.

But these institutions reinforce the stereotype that young people are the best and only technology tutors for seniors. Focusing volunteer recruitment only on students, reinforces the idea that seniors should turn to young people to stay *with it* on technology. This ageist value hinders the agency of seniors.

7. Policies and resources limit impact of technology support services

These institutions place limits on what staff and volunteers can do to help seniors with technology, for how long, when, and in what form. For instance, technology support is only available during certain hours at senior centers, and technology support is not always available on personal devices at public libraries.

As a result of these policies, shaped by the institutions without the participation of the public, seniors navigate a complex landscape as they seek support learning technology in these institutions.

8. When possible, seniors seek support on the devices they own

Increasingly, seniors own their own technology. In fact, 100% of those I interviewed own at least one digital technology. Seniors seek assistance learning to use the technologies they own. In contrast, the institutions, and in particular public libraries, attempt to limit technology support only to those computers owned by the library. I observed nearly a dozen instances of library staff refusing to assist seniors on their own devices.

	Tubman S.C.	Smith S.C.	Metro S.C.	Metro Library	Main Library	Branch Library
% used lab computers	27%	27%	0%	91%	88%	91%
% used their own devices	81%	79%	100%	17%	18%	17%

This table demonstrates that when support is available for personal devices, older adults take advantage of it. Older adults are more than four times

as likely to use their personal devices at senior centers than at public libraries. By bringing their devices into these spaces, and insisting on learning how to use them, seniors shape these institutions.



Open source image/<http://echicago.illinois.edu>

9. With support, seniors help each other learn technology

With support, the deeply rooted population of community elders learn to help each other learn technology. At one of the senior centers I studied, I established technology support services from the bottom-up, since none existed there previously. In collaboration with seniors and staff, we created policies that empowered seniors to help other seniors learn technology. These policies led to seniors helping other seniors learn technology with more regularity than at any of the other institutions I studied.

The culture of senior centers shaped this success. Senior centers are group-based institutions. One joins a senior center and then becomes part of the group. Describing his first interactions with a senior center, one man stated that:

“You know, when I first came I didn’t know what to expect I got here and everyone ... seemed to know everyone else And it was great, you know, making those friendships.”

	Tubman S.C.	Smith S.C.	Metro S.C.	Metro Library	Main Library	Branch Library
% socializing while using technology	78%	42%	94%	13%	14%	3%
% helping each other with technology	20%	19%	89%	8%	6%	0%

Seniors also form strong lifelong attachments with public libraries. A primary reason seniors come to these institutions for technology support is because these institutions are rooted in their communities. More than two thirds of the seniors I interviewed have lived for more than 30 years in the local city.

10. Seniors learn technology over time, in the informatics lifecourse

Seniors are determined and creative learners who with support integrate technology into the diverse rhythms of their lives. I call this the *informatics lifecourse*: how a person learns technology through the stages of his or her life.

In general, I found that digital literacy involves learning and integrating digital technologies into one's life. In the pre-digital age one could learn to read and write, that is, practice literacy, and then continue to read and write many years after having initially learned these procedures. In the digital age, however, literacy requires learning technology over time.

An individual who learns Windows 3 in the workplace in the 1990s and then stops using technology upon retiring may then find that using a smartphone in the 2010s is quite challenging. **We are never done learning technology. At one point or another we all need help with technology. We can also help others with technology.**

Seniors learn technology best in safe, supportive, sustained relationships. When seniors lack these relationships, their digital literacy decreases over time. In fact, 48% of those I interviewed said they had stopped using technology for some portion of their lives. These periods of *digital disengagement* relate to periods of life in which technology support is absent.

When these supportive relationships are present, digital literacy thrives. Lacking opportunities to learn technology at school or on the job, in retirement seniors turn to informal learning spaces like public libraries and senior centers to acquire and expand digital literacy.

Seniors form deep and enduring relationships with the technology supporters they find in public libraries and senior centers.



Three specific proposals

1. When seniors learn something new with technology, they could turn around and share that knowledge with others. Seniors could overcome and shatter ageist stereotypes by proudly proclaiming their digital accomplishments. This work is already underway. Public libraries and senior centers could help facilitate it by celebrating, for instance, a “digital senior” of the week.

2. We all learn technology over time. So we need places that support the lifelong learning of technology, where people can come throughout their lives to learn new technology, where people can form supportive relationships that include technology support. Public libraries and senior centers could better be these places. Continuing education for staff could help.

3. The development of technology support services for seniors should begin with seniors themselves. Rather than see seniors as passive service recipients, let's acknowledge that they are community leaders. If seniors can play more active roles in shaping technology support services, senior centers and public libraries can better lead their communities into the digital age.



The Community Informatics Research Lab opened in 2008 to study the interaction of local communities and information technology. Contact Kate Williams, Univ. of Illinois School of Information Sciences, 501 E Daniel Street, Champaign, Illinois 61820 USA, 217-244-9128, katewill@illinois.edu.