Community-Led Digital Literacy Training for Older Adults

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About the speaker

- **Dr. Brian Detlor**
  - **Professor & Area Chair (Information Systems) at the DeGroote School of Business, McMaster University**
  - **Visiting Professor at the Centre for Social Informatics in the School of Computing, Engineering & the Built Environment @ Edinburgh Napier University**
  - **Past-President of the Association of Information Science and Technology (ASIS&T)**
  - **Research interests bridge the Information Systems and Library & Information Science communities**
  - **Latest research projects: digital skills training; digital storytelling**

The Challenge

- Older adults, especially marginalized seniors, are less likely to make use of digital devices
  - Why?
    - They experience barriers (e.g., financial & mobility barriers) to accessing the Internet and receiving training and support
    - They are less confident/comfortable using IT

The Challenge

- Why is this issue important?
  - Access and use of digital technologies (e.g., social media, the Internet) can overcome social isolation and loneliness, which older adults are more likely to experience
  - As the world becomes more digital, it is essential that individuals become more ***digitally literate*** in order to fully participate and thrive in society

What is Digital Literacy?

- Digital literacy is “[t]he set of skills, knowledge and attitudes required to access, create, use, and evaluate digital information effectively, efficiently, and ethically.” (Julien, 2018)
  - Skills to operate and utilize digital technologies such as computers, tablets and smart phones
  - Skills to access, create, use, and evaluate digital information

Digital Literacy Training

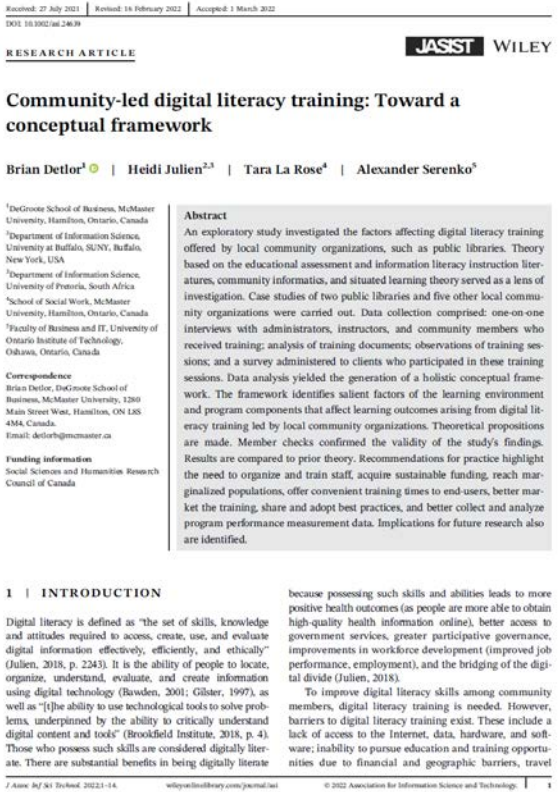
- Community-Led Programs to the Rescue!
  - Offered by public libraries and social service organizations
  - Provide free (low-cost) training opportunities
    - Coding clubs; Internet Safety; Use of online government services; Access to public health information; Makerspaces
  - Serve people who may not have access to such training
    - Seniors; Youth facing employment barriers; Newcomers; Marginalized communities

My Research

- Community-Led Digital Literacy Training
- Digital Literacy Training for Older Adults in Social Housing
- A Community Partnership Approach to Delivering Digital Literacy Training to Older Adults

Community-Led Digital Literacy Training

- Goals:
  - Generate a ***theoretical model*** of factors affecting the efficacy of digital literacy training opportunities led by local community organizations (including public libraries)
  - Produce ***recommendations*** for practice for local community organizations to follow



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RESEARCH ARTICLE

JASST WILEY

Community-led digital literacy training: Toward a conceptual framework

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Abstract
An exploratory study investigated the factors affecting digital literacy training offered by local community organizations, such as public libraries. Theory based on the educational assessment and information literacy instruction literatures, community informatics, and situated learning theory served as a lens of investigation. Case studies of two public libraries and five other local community organizations were carried out. Data collection comprised: one-on-one interviews with administrators, instructors, and community members who received training; analysis of training documents; observations of training sessions; and a survey administered to clients who participated in these training sessions. Data analysis yielded the generation of a holistic conceptual framework. The framework identifies salient factors of the learning environment and program components that affect learning outcomes arising from digital literacy training led by local community organizations. Theoretical propositions are made. Member checks confirmed the validity of the study's findings. Results are compared to prior theory. Recommendations for practice highlight the need to organize and train staff, acquire sustainable funding, reach marginalized populations, offer convenient training times to end-users, better market the training, share and adopt best practices, and better collect and analyze program performance measurement data. Implications for future research also are identified.

1 | INTRODUCTION

Digital literacy is defined as "the set of skills, knowledge and attitudes required to access, create, use, and evaluate digital information effectively, efficiently, and ethically" (Julien, 2018, p. 2243). It is the ability of people to locate, organize, understand, evaluate, and create information using digital technology (Bawden, 2001; Gilster, 1997), as well as "[t]he ability to use technological tools to solve problems, underpinned by the ability to critically understand digital content and tools" (Brookfield Institute, 2018, p. 4). Those who possess such skills are considered digitally literate. There are substantial benefits in being digitally literate because possessing such skills and abilities leads to more positive health outcomes (as people are more able to obtain high-quality health information online), better access to government services, greater participative governance, improvements in workforce development (improved job performance, employment), and the bridging of the digital divide (Julien, 2018).

To improve digital literacy skills among community members, digital literacy training is needed. However, barriers to digital literacy training exist. These include a lack of access to the Internet, data, hardware, and software; inability to pursue education and training opportunities due to financial and geographic barriers, travel

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Community-Led Digital Literacy Training

- Research Questions
  - What factors affect the efficacy of digital literacy training led by local community organizations?”
    - What constitutes success for a digital literacy training initiative within the local community context?
    - What organizational factors (e.g., administrative factors) foster or challenge digital literacy training initiatives offered to local communities?
    - What user considerations concerning digital literacy training initiatives influence community member uptake, lead to gains in digital literacy skills development, and foster greater digital literacy appreciation among community members?
    - What design elements of a digital literacy training initiative foster or challenge digital literacy training initiatives offered to local communities?

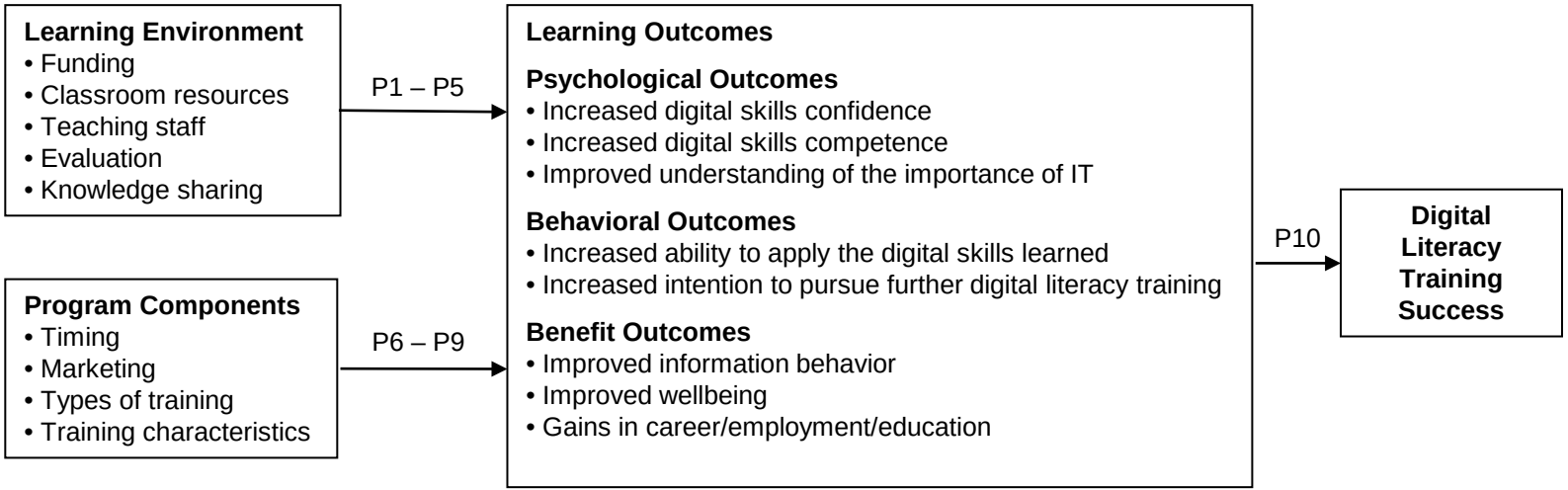
Community-Led Digital Literacy Training

- **Phase One – completed**
  - Exploratory qualitative case studies of digital literacy training programs offered by local community organizations
- **Phase Two – in-progress**
  - National surveys across Canada now being administered in partnership with the *Canadian Urban Libraries Council* and the *Canadian Federation of Libraries Association*
    - Surveys to administrators & instructors at public libraries
    - Surveys to end-users of digital literacy training programs

Phase One – Data Collection

- Qualitative
  - Involved ***interviews*** with:
    - 14 administrators at 2 public libraries and 5 other local community organizations across 2 cities in Ontario
    - 6 instructors of digital literacy training
    - 23 end-users who participated in the training
  - ***Observations*** of the training and a review of ***documentation***
  - ***Survey*** to the 23 end-users who took the training

Phase One – Key Findings



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Phase One – Key Findings

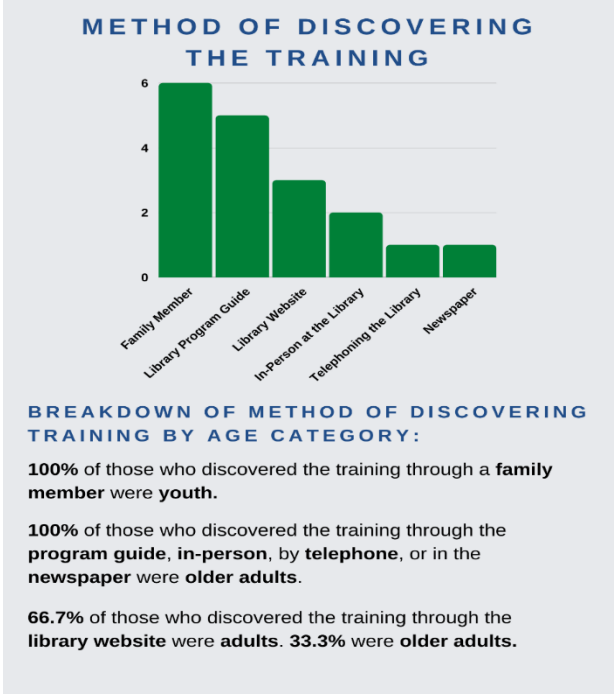
- Public libraries are leaders in digital literacy training
- Public libraries need to partner with organizations to deliver key digital literacy training programs
    - Grow with Google
    - CISCO's "Let's Learn Tech" program
- Lessons learned about how "best" to deliver digital literacy training is ad hoc and not well-communicated nor well-documented
    - Often shared by word of mouth

Phase One – Key Findings (cont'd)

- Challenges rolling out digital literacy training
  - Staff need to be digitally literate and trained themselves
  - Need to hire extra staff to deliver this training
  - Need to provide training evening/weekends
  - Evaluation of digital literacy training is spotty and often not carried out… need to track outcomes, not outputs
  - External funding is heavily relied upon to carry out this training
    - Often training is facilitated by grants (not sustainable)

Phase One – Key Findings (cont'd)

- Marketing needs to improve
  - Typically done via traditional outlets
    - Posters in libraries
    - Notices on library websites
  - Ads reach those who visit the library, but not those who do not visit the library



Phase One – Key Findings (cont'd)

- The training is well received
  - 14 out of 16 adult and older adult learners stated that the skills learned in their digital literacy training would ***improve their personal life***
    - Nine of those 16 stated that the training would improve their access to services such as finding a doctor, nutritionist, or authoritative health-related information

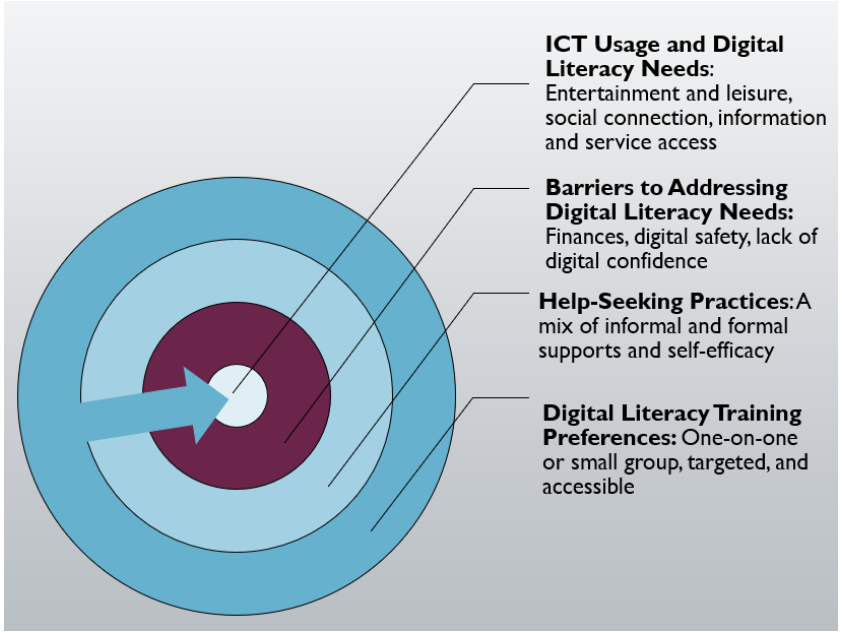
Digital Literacy Training of Older Adults in Social Housing

- A MIRA-funded post-doctoral fellow research project is being conducted in partnership with Hamilton Public Library (HPL) and CityHousing Hamilton (CHH)
  - <u>Recruitment</u>
    - We set up a table with HPL promotional materials and study information at 5 food markets in June 2022 at CHH buildings
    - Had informal conversations with tenants about digital literacy and an invitation to set up a formal interview

Digital Literacy Needs of Older Adults in Social Housing

- **Data Collection and Analysis:**
  - ***A thematic analysis of 13 interviews with 15 CHH tenants***
    - 12 phone interviews
    - One in-person interview with three participants
    - 11 out of 15 participants in their 70s
    - Six men, 9 women

Digital Literacy Needs of Older Adults in Social Housing



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Digital Literacy Needs of Older Adults in Social Housing

- In September, we will start exploring the delivery of ***mobile digital literacy training*** to older adults in social housing
  - Older adults living in affordable housing are vulnerable to social isolation and loneliness due to a lack of access to computers and the Internet, and the ability to use digital devices.
  - Mobility concerns among this population limit access to public libraries who are traditional providers in the community of “free” access to the Internet, computers, and digital literacy training.

Digital Literacy Needs of Older Adults in Social Housing

- Mobile User-Experience Lab
  - Through partnership with Hamilton Public Library (HPL) and social housing agencies (e.g., CityHousing Hamilton (CHH)), we will explore the utility of a mobile learning lab that offers instruction and technology support to vulnerable seniors living in social housing. HPL will provide curated accessible digital literacy training materials

Digital Literacy Needs of Older Adults in Social Housing

- Mobile User-Experience Lab
  - Mobile digital literacy training scenarios will be ***co-designed*** with seniors living in social housing.
  - These ***scenarios*** will offer various options in terms of the content taught, the mode of instruction, the training materials used, and the training schedule.
  - Each of these scenarios will be measured using ***data collection*** tools housed in the mobile learning lab (i.e., video recording, biometric data collection, eye tracking) as well as through interviews, observations, and questionnaires across a diverse pool of older adults.
  - ***Data analysis*** will compare the efficacy of the various scenarios against one another using both qualitative and quantitative data analysis techniques.

Community Partnership Approach

- Conducted a case study in London, Ontario
- Investigated a community partnership approach to deliver digital literacy training to older adults
  - CreativeArts Network
  - London Public Library
  - Middlesex Public Library
  - Dorchester Seniors' Centre

- Research Question:
  - *What are the benefits and challenges of a partnership approach between public libraries and seniors' organizations in the delivery of digital literacy training for older adults?*

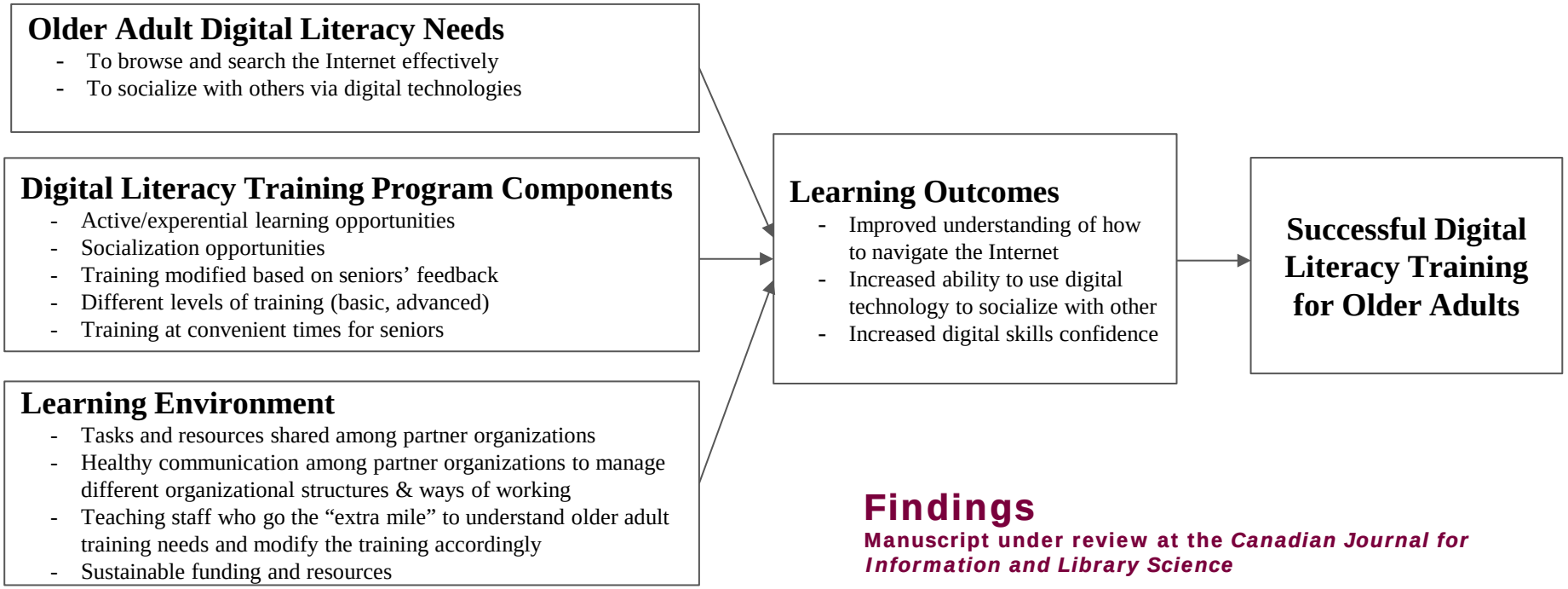
Community Partnership Approach

- Data Collection & Analysis
  - 15 interviews conducted with 12 participants (4 admin, 4 instructors, 4 students)
    - Two were volunteers who founded CreativeAge Network; two males & 10 females; all over 60 yrs of age
  - All interviews conducted over Zoom ranged from 60 to 90 minutes in length with the average being 60 minutes
  - All interviews were recorded and later transcribed
  - Analysis done over 2 rounds of iteration using thematic analysis by multiple researchers

Community Partnership Approach

- Major Findings
  - Need to incorporate ***socialization*** components and ***active learning*** opportunities in the provision of digital literacy training for older adults
  - Instructors need to go the "***extra mile***" to know their older adult students' digital literacy training needs and adjust the training accordingly
  - There are strong advantages of utilizing a community partnership approach in the delivery of digital literacy training to older adults in terms of ***sharing tasks and resources***
  - Attention must be paid to differences in ***organizational structures*** & ***ways of working*** among partner organizations so that proactive steps can be taken to mitigate tensions

Community Partnership Approach



Findings

Manuscript under review at the *Canadian Journal for Information and Library Science*

Policy Implications

- Training design implications
- Funding implications
- Performance Measurement and Knowledge Sharing
- Support library community partnerships
  - With seniors' organizations
  - With technology companies in the private sector

Questions?

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