

Preparing Future Librarians and Current Information Professionals to Lead Libraries in Times of Crisis

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Abstract:

Libraries today are expected to be a hub of information service providers and also serve as catalysts for community engagement. LIS education programs are responsible for producing proficient future librarians who will be strong advocates of innovative services to their communities and who can rise to the occasion in providing community-first disaster and health information services. However, one of the most difficult tasks is developing LIS pedagogy that can be delivered both in traditional classrooms and online. To that end, in October 2015, faculty members and graduate students from the School of Library and Information at the University of South Carolina began collaborating with

professional librarians from local libraries and the South Carolina State Library to investigate public libraries' value to their communities in providing critical information services, as well as the libraries' legitimacy as partners of public health agencies at a time of catastrophic flooding. In 2017, a survey study examined how community members had accessed information during the 2015 flooding and during Hurricane Matthew in October 2016. Situation-specific research conducted in the third study targeted the Houston Public Library system's main library and its branches affected by Hurricane Harvey in 2017. Librarians' basic required competencies have been identified. The majority of these competencies and their skill sets have been integrated into the curriculum of the SLIS/USC. A new course, tentatively titled "Community Engagement and Empowerment through Information Environments," is under development. Continuing education programs and professional development opportunities are also being developed to better prepare professional librarians to provide disaster and health information services.

Keywords: LIS Education and Its Pedagogy, Public Libraries, Natural Disasters and Disaster Preparedness, Professional Development

Background

Society today expects libraries to be not just information service providers, but to also serve as catalysts for community engagement (Institute of Museum and Library Services, 2016). Libraries have become hubs for access to information services, connections to human records, and support of knowledge filtering. The mission of librarians is to improve society through facilitating knowledge creation, preservation, and dissemination (Lankes, 2011). Library and information science (LIS) educators face the challenge of producing proficient future librarians and information professionals who will be strong advocates of providing innovative services to their communities. LIS educators are responsible for connecting students with real-world information activities, library services, and professional experiences (King, 2012; Saunders, 2015). LIS researchers are well positioned to investigate phenomena related to libraries and their social responsibilities and integrate research findings to enhance curriculum development (Tu-Keefner, F., Liu, J., Harnett, E., & Hastings, S. K., 2017). It is essential to help LIS graduates become competent and confident professionals who can support their libraries' service to communities in times of crisis (Tu-Keefner, F., Liu, J., Freeburg, D., Harnett, E. J., Lyons, D. R., Corbo, M., & Hobbs, A., 2018). However, one of the most difficult tasks is the development of LIS pedagogy that can be delivered in both traditional classroom and online environments (Otter, 2013)

During a disaster, people need access to accurate information and clear, specific instructions to help them act appropriately (Tanner, A., Friedman, D. B., Koskan, A., Barr, D., 2009). Public libraries, in addition to health, fire, and police departments, are community outreach centers and sources of credible information at difficult times (Kreps, 2005). Public libraries have long made valuable contributions to their communities by consistently providing essential information services. In times of crisis, they can aid in disaster preparedness, response, and recovery (Tu-Keefner, F., Liu, J., Harnett, E., & Hastings, S. K., 2017). LIS pedagogy and educators must step up to prepare future librarians and information professionals who can rise to the occasion in providing community-first disaster and health information services (Tu-Keefner, F., Liu, J., Freeburg, D., Harnett, E. J., Lyons, D. R., Corbo, M., & Hobbs, A., 2018). Educators also need to assist in sharpening professional librarians' competencies through continuing education programs development (Tu-Keefner, F., Liu, J., Harnett, E., & Hastings, S. K., 2017).

Based on the recommendations of Vaughan and Tinker (2009) and a survey of the research findings from the professional literature, the basic required competencies are the following (Barr-Walker 2016; Bertot et al., 2006; Blendon et al. 2003; CDC, 2018; Kreps 2005; Malizia et al. 2012; McKnight, 2006; Tu-Keefner, F., Liu, J., Harnett, E., & Hastings, S. K., 2017; Wray et al., 2004):

- ethical delivery of effective health information services
 - facilitating technology access (including social media)
 - promoting information and technology literacies
- community engagement and outreach
- creation of library disaster preparedness policies and plans, including salvaging damaged collections
- crisis communications, including public relations and public speaking
- emergency planning and management
- emergency and disaster management, preparedness, and response
- working with public health government agencies and local government officials

Literature Review

Libraries and Community Engagement

Today, public libraries are no longer seen as just buildings where patrons check out books and other materials, but as providers of crucial services to their communities. Community engagement has continued to be a high priority within libraries, as services and programs are designed based on the specific community where the library is located. Librarians must have a comprehensive understanding of their communities' needs and wants to provide services that can make a positive impact. In addition, librarians have to build a relationship with the families of their community. Caspe and Lopez (2018) emphasize that this understanding of the librarian-community-family relationship and interactions will help librarians “build relevant collections, services, and programs” (p. 163-165). Awareness of vulnerable population groups is essential as well. Dowd (2018) discusses the importance of “practical compassion,” which involves building relationships with the most vulnerable segments of our communities (p. 55).

Public libraries commonly provide technology literacy-related classes and other tech-oriented services to solve the digital divide problems in the community. A good example is that librarians often work with patrons and help them access government information resources and services on the Internet to ensure that no one is on the wrong side of the digital divide (Bertot, Real, & Jaeger, 2016). Moreover, in order to help patrons access government services online, it is critical that libraries partner with government agencies to offer an even greater variety of services. Edwards (2018) adds to this sentiment by explaining that offering government services such as voter registration or passport issuing promotes the goal of encouraging civic engagement. In addition, partnering with multi-level agencies allows public libraries to invite members from different sectors to contribute to community services. For example, partnering with local universities is beneficial in connecting students with specialists in various aspects of civic literacy and encouraging student participation in community projects. (Shuyler and Chenevey, 2018).

With the ever-evolving nature of technology, it's crucial for librarians to become competent in using new technologies so that they can become a mainstay for community learning and engagement. Utilizing technology and social media can help librarians reach out to tech-savvy user groups and promote remote access to electronic library services. Palfrey (2015) asserts there is value in networking and using social media and other technology to reach a wide audience, because “operating in a network, not in an independent silo, is essential to success for librarians” (p. 22). Although traditional library skills remain important to meeting patron needs, the challenge is to ensure that library staff are well trained to handle tech-related tasks and to continue learning new technology. To achieve this, Palfrey recommends “aggressive, strategic investments” in providing professional development, including involvement of expertise outside of the library field (p. 24).

Professional Development and Librarianship

Librarianship is a profession committed to lifelong learning. Therefore, it is no surprise that professional librarians and library staff members are predisposed to CE and professional development. Information professionals believe that CE is needed for librarianship at all levels (Munro and McClure, 2014; YALSA, 2018). The Young Adult Library Services Association, a division of the American Library Association, strongly promotes the importance of training for librarians' career development by stating that "... All library staff, regardless of library size or type, have the right and responsibility to be engaged in effective CE and professional development throughout their careers (YALSA, 2018, p. 4)." According to LIS publications, CE is currently being offered in a variety of formats (Kaiser, 2012). Many librarians emphasize the importance of attending conferences of different types or sizes and making conference presentations. Munro and McClure (2014) say that "in-person conferences still provide valuable opportunities that cannot be replicated online (p. 37)." Landgraf (2017) discusses the importance of the ALA's Leadership Institute and indicates that in-person experience is valuable because of the small-group discussions that facilitate professional experience sharing and leadership role-modeling.

However, because of skyrocketing costs and missing work hours, it is often difficult for professional librarians to carve out time for professional development (Munro and McClure, 2014). Fortunately, libraries are ideal for supporting online learning and helping their staff members reach their lifelong learning goals (Miller, 2014). As Bussell (2019) states, "When the library staff are encouraged by library leadership to participate in professional development, they are more likely to do so." (p. 60). Munro and McClure (2014) discuss the importance of making virtual options available, mentioning current technology that allows professional development training to reach a more diverse group of attendees and presenters. Kowalsky & Woodruff (2017) emphasize that virtual training programs significantly promote inclusivity and equity to diverse audience populations (Kowalsky & Woodruff, 2017).

People now demand access to information, resources, and services anytime, anywhere. Ever-changing information technology has become embedded in every aspect of communication (Tu-Keefner, Liu, Harnett, & Hastings, 2017). People must be able to use a variety of types of technology to navigate through different channels for effective information seeking (Tu-Keefner, Liu, Harnett, & Hastings, 2017). On the Internet, web resources and Web 2.0 technology such as social media facilitate interactions between the information senders and receivers (Liu, Tu-Keefner, Zamir, & Hastings, 2017). Miller (2014) says that technology applications and uses have been central to a major cultural shift in many libraries. Therefore, it is essential for librarians to be capable of performing professionally and effectively in online environments to provide essential services, especially in times of crisis. Online training opportunities, such as massive open online courses (MOOCs), webinars, classes and coursework, and social media resources (e.g., blogs, live broadcasts on Facebook, and twitter meetings) have become an increasingly popular way to reach a wide range of librarians who wish to pursue professional development activities (Fite, Hysong, & Yang, 2017).

Disaster Preparedness and LIS Pedagogy

Libraries have long made valuable contributions toward meeting the needs of their communities. Librarians are responsible for the constant and consistent provision of a variety of information services to the communities they serve, including in times of crisis. (Bertot, Jaeger, & Langa, 2006; Zach, 2011; Bruxvoort, 2012; Bishop & Veil, 2013; Alajmi, 2016). Information professionals manage and curate many different kinds of information sources in various media formats, including paper and digital. In discussing the complications of the destruction of data, paper, and electronic information systems due to the collapse of the World Trade Center after 9/11, Cox et al. (2001) note that "technology and disaster have long been recognized as being co-dependent." Therefore, it is vital for libraries to have emergency management plans to preserve valuable information sources and resources in times of disaster. Well-educated librarians and information professionals can aid in disaster preparedness, response, and recovery in their own organizations and in the communities their

libraries serve. To better prepare information professionals who can play such leadership roles in times of crisis, LIS educators must include disaster preparedness, response, and recovery in the regular curricula and continuing education (CE) programs offered (Tu-Keefner, F., Liu, J., Harnett, E., & Hastings, S. K., 2017).

Much research has called for more attention and effort in LIS curriculum revision to increasing the coverage of crisis and disaster preparedness in pedagogy, as well as to elevating the level of priority on these topics. Despite the field of crisis management having grown considerably, LIS curricula seem neither to have kept pace with this knowledge growth nor to reflect on this expansion in the pedagogy (Alajmi & Al-Aallaf, 2018). Through an evaluation of 264 course syllabi from 28 ALA-accredited MLIS programs, Alajmi & Al-Aallaf found that, in general, disaster preparedness received only indirect coverage in LIS curricula, and in many cases, the coverage of related topics was given low priority. Among all the courses reviewed, only 1.1% of the required core courses and 6.5% of the electives covered crisis prevention. This study also found that while there is good coverage of traditional types of information sources and services in MLIS program curricula, there is not strong consideration for discussing issues related to natural disasters and the societal calamities that dominate the media and occupy the minds of individual communities.

Research Design

A group of faculty members of the School of Library and Information Science at the University of South Carolina (SLIS/USC) partnering with graduate students of the SLIS/USC and professional librarians at local public libraries and the South Carolina State Library have conducted multiple research projects examining phenomena related to public libraries and their community engagement in times of disaster. The findings of these research initiatives have helped LIS educators and researchers at the SLIS/USC better understand the essential role that public libraries play in a time of crisis, and how libraries can promote positive change within their communities. In addition, the results have been integrated into the LIS curricula in face-to-face classroom and online teaching formats and used to support the design of future research.

In October 2015, several counties in South Carolina (SC) in the United States experienced catastrophic flooding that caused severe damage, including loss of homes and other calamities. Situation-specific research was conducted to investigate public libraries' value to their communities in providing critical information services, as well as the libraries' legitimacy as partners of public health agencies. In 2017, a survey study examined how community members accessed information during the catastrophic flooding in October 2015 in the Midlands and during Hurricane Matthew in October 2016 in the coastal zone of South Carolina. Situation-specific research conducted in the third study targeted the Houston Public Library system's main library and its branches affected by Hurricane Harvey, which started on August 25, 2017, and went through September 1, 2017. The Houston project runs from the beginning of November 2018 until the end of 2019 and is currently in progress.

These studies investigated: 1) public librarians' use of multiple channels and technology for information distribution and services; 2) public libraries' collaboration with multi-level agencies to facilitate emergency response and recovery; and 3) community members' use of disaster information sources and evaluation of the information's credibility before, during, and after disasters. This paper documents how the research findings have been integrated into curriculum and continuing education programs that can be delivered in both traditional classroom and online learning environments at the SLIS/USC.

Theoretical Framework Used to Guide Research Design

This examination of the role of public libraries is based on a framework of effective health risk communication preparedness and implementation developed by public health experts for vulnerable populations in a pandemic influenza situation (Vaughan and Tinker 2009). It provides guidelines for situation-specific communications and supports the goals of the research. The focus of the

investigation was on the 1) process (including the use of multiple channels and technology for information distribution and services); 2) people (how libraries used community-first approaches for the provision of services and dissemination of trusted and credible information resources); and 3) partners (how libraries collaborated with multi-level agencies to facilitate the building of community capacity and resources for emergency response and recovery).

Methodology and Data Collection

Situation-specific case research was utilized to design these studies. The methodology consists of qualitative and quantitative approaches, including focus groups and a survey. The purposes were to collect comprehensive information regarding librarians' activities (for example, processes for information gathering, distribution, and services), libraries' partnerships with multi-level agencies, and community members' information needs and technology access, including to social media.

A Summary of the Results from These Studies

These research projects documented the ability of public libraries to provide situation-specific and community-first services that met the recommended health risk communication strategies described in the framework used for research design. In the study conducted in 2015, three 60-minute focus group meetings with public library administrators and librarians were held. Altogether, twenty-five library administrators (13/25, 52%) and librarians (12/25, 48%) were invited to participate in this study. The subjects were limited to professional librarians who had earned a Master of Library and Information Sciences (M.L.I.S.) degree or equivalent. Eighteen out of twenty-five (18/25, 72%) attended the meetings. Eight of them were library administrators (8/18, 44%), and the rest librarians (10/18, 56%). Seven library administrators and librarians were unable to participate in the study.

In the survey study conducted in 2017, altogether there are sixty-one questionnaires received that are qualified as valid data for analysis. Among the participants of these 61 valid responses, over 80% of them indicated that they are library-card holders. 42 of them (70%) are female; 9 participants (15%) are male. Ten of the participants did not answer the question regarding gender. 37 of them (61%) are age 35 or older. The target population for survey participation was limited to adult public library users who were frequent users of the Internet and social media. It was expected that the number of responses received would be small.

In November 2018, two SLIS/USC faculty members and a graduate student collaborated with two librarians from the South Carolina State Library to investigate public libraries and their community engagement during Hurricane Harvey, which occurred in Houston, Texas, in 2017. The research team held five focus-group meetings with library administrators, librarians, and staff of the Houston Public Library system, with each meeting lasting around 90 minutes. Over 50 library administrators and librarians from the majority of the libraries in the disaster areas participated in the meetings, including staff members from the Main Library and branches of the system. Because of the diverse workforce in the Houston Public Library System, the subjects were not limited to professional librarians who have earned a Master of Library and Information Sciences (M.L.I.S.) degree or equivalent. This pool of subjects was identified by the library administrators of the Houston Public Library system who worked with the research team to plan this project. The invitations to the subjects were based on their involvement in the library operations during and after the disaster.

In the two earlier studies conducted in 2015 and 2017, the results showed that although the public libraries and librarians rose to the occasion, they had not been well prepared in advance to identify, gather, distribute, and promote the use of disaster and health information. The required knowledge and skills described in the "Background" section were not fully discussed by participants at the focus group meetings with the library administrator and librarian participants in the first study conducted in 2015. The following quotes sum up the lessons that the participants of this study learned when the 2015 catastrophic flooding hit the local communities:

“...**I wish I had known to prep people.** ... There was just so much changing information constantly. ...” [Library Administrator/Librarian Subject #16]

“... when we first started collecting the information during the flood, I had originally anticipated **having a flier** to hand out to customers when they come into the library after we opened. And we quickly realized, because things were changing so fast, there was just no way to keep up with a document. ... **that's why we started focusing on the website, and just being able to log in and quickly change one or two sentences to keep it current** ...”. [Library Administrator/Librarian Subject #11]

“... it would be beneficial for us to **start looking at ways to be prepared if this should ever happen again.** And maybe looking at organizations that we could connect with now, so that if this should ever happen, **we are better prepared to provide services and information.**” [Library Administrator/Librarian Subject #13]

“...**We didn't do a disaster bookmark, but we do now have a disaster bibliography for people, for children, young children through adults.** And we put together something that really had fiction, non-fiction, every grade level from personal stories of people who went through things like Katrina to some other kinds of resources that help you ..., Like we tried to concentrate on some resources that were newer, so you could always update it. ...” [Library Administrator/Librarian Subject #3]

The third study, situation-specific research conducted in 2018, targeted the Houston Public Library system's main library and its branches affected by Hurricane Harvey in 2017. The results show that the librarians and library administrators of the Houston Public Library system were well prepared to provide critical information services when disaster hit. Their experience with previous catastrophes provided valuable lessons for them; therefore, they were able to integrate many of these lessons into long-term disaster plans. The comments below are examples:

“... We have been through hurricanes and storms before with Hurricanes Rita and Ike as well as Tropical Storm Allison and even major flooding events in 2015 and 2016 to name a few. ...” [Library Administrator Subject #4]

Similar concepts regarding the basic required competencies mentioned in the “Background” section were also identified; however, more essential knowledge and skills sets were revealed:

- **leadership development**
- **organizational development**
- **team building, including resourceful team-oriented performance**
- **awareness of the environment and change management**
- **taking a leadership role in the community engagement**
- **training of library staff**

The participants from the Houston Public Library were well aware of the importance of the public libraries' and librarians' critical leadership in times of crisis. They were pro-active in making decisions to aid in disaster preparedness, response, and recovery. The comments below are examples:

“... Houston Public Library serves the 4th largest city in the United States and spans across 627 square miles. Over 90 languages are spoken in the area and Houston is considered the most racially and ethnically diverse city in the United States. The city of Houston has existing plans for disasters including an annual assignment of tiers to all employees and a messaging system for emergency closures. ... We have official city policies dealing with severe weather and emergency conditions ... Each department, including the library has a Continuation of Operations Plan (COOP) on file. **The**

Library's COOP includes plans for continuing services at the Central Library or alternately the Carnegie Neighborhood Library if Central is not accessible. The Customer Experience division meets with Managers and Assistant Managers on a monthly basis and these emergency procedures are regularly reviewed so we are not surprised or flustered when emergency conditions arise. ... [Library Administrator Subject #3]

“ ... Hurricane Harvey made landfall as a Category 4 hurricane. **Two branch libraries were both broken in by HPD [Houston Police Department] for citizens to get out of the flood waters.** HPL [Houston Public Library] provided laptops and hotspots to the shelter at the Convention Center. This allowed the evacuees to do initial applications to FEMA [The U.S. Federal Emergency Management Agency] and the Red Cross. ...” [Library Administrator/Librarian Subject #6]

The Houston Public Library administrators strive to build successful community-first teams that can provide critical services in times of crisis. Team-oriented performance, including flexibility, is at the heart of the management style and is reinforced through systematic training of the staff.

Conclusion and Recommendations

Public libraries are in a position to serve their local community's information needs and to reach community members whose everyday lives have been affected by a crisis. Our 2017 survey findings revealed that community members trust libraries and librarians' services in times of crisis. However, the findings also show that some of the public librarians were not fully prepared to provide the needed disaster and health information services. Therefore, it is critical that LIS education programs enhance their curricula to cover the required competencies discussed above. In addition, LIS programs should provide mentoring to enable public librarians to deliver training programs to support staff members' professional development.

Today, most of the SLIS/USC master's courses are offered online. The majority of the competencies and skill sets identified in our research have been integrated into the curriculum, especially in the courses in both online and face-to-face formats covering public library services, management, information services, health information resources, and practicum. A new online course, tentatively titled “Community Engagement and Empowerment through Information Environments,” is under development.

Although several public librarian participants in these studies did not feel it necessary for LIS education programs to cover disaster preparedness, response, and recovery in the LIS curricula, CE is essential to better prepare librarians to provide disaster and health information services. CE programs and professional development opportunities are also being developed by the USC faculty members from the SLIS, the Department of Health Promotion, Education, and Behavior at the Arnold School of Public Health, and the School of Journalism and Mass Communications to better prepare professional librarians to provide disaster and health information services. Possible delivery formats for such programs include in-service courses, seminars and webinars, symposiums, and conferences, in both online and onsite platforms. Web-based materials will need to be available as supplementary instructional aides to reinforce the learning outcomes and to support participants' self-paced learning.

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