

**Rural Public Library Staff Technology Skills:**

**Action Steps for Improving Skills and Increasing Use of E-resources**

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**Abstract**

Research-based evidence (2011-2016) is used to support the claim that rural public libraries must train library staff to be confident users of the library's e-resource collection and effective and efficient providers of e-resource services to community patrons. A four-step action plan is outlined to improve rural public library staff members' abilities to use technology and promote digital inclusion of rural community members.

***Keywords:*** rural public libraries, public library staff training, digital inclusion

## **Rural Public Library Staff Technology Skills:**

### **Action Steps for Improving Skills and Increasing Use of E-resources**

Ideally, public libraries today provide technology-related services and e-resources to community members. E-resources, for the purpose of this paper, are defined as any electronic or online resource that the library subscribes to and offers to the community such as e-books, e-audiobooks, language learning platforms, databases, online health resources, and online learning programs. According to the 2014 Digital Inclusion Survey, “the most frequently offered services or resources were online homework assistance (95.3%), e-books (90.3%), online health resources (76.8%), and online job/employment resources (62.3%)” (Bertot, Real, Lee, McDermott, & Jaeger, 2016, p. 36). With such widespread offerings of e-resources in public libraries, it is important that e-resources are considered a core part of the libraries’ collections and services, and that library staff members are equipped to assist patrons with navigating and effectively and efficiently using those e-resources. Many small, rural public libraries are challenged to keep up with new technologies and new information sources.

### **Problems in Rural Public Libraries**

Rural public libraries face unique challenges in training public library staff to use e-resources and provide e-resource services to community patrons. Many rural public libraries are staffed with part-time workers, known as paraprofessionals, many of whom do not have previous library experience or formal library school education. According to Fischer (2015), “many rural and small town libraries hire librarians without master’s degrees (40.79%) and they lack necessary staff” (p. 8). Though paraprofessional library staff are often passionate about their jobs, many do not feel confident using, demonstrating, or troubleshooting the library’s e-resources. When public library staff are not confident using e-resources, they are less likely to

recommend e-resources to library patrons. According to the 2015 PEW research study, rural residents are among the most likely to say they do not know if their library offers e-books (Rainie, 2016). Further, O'Connell and Haven (2013) found there is a widespread tendency for public library staff to view e-resource collections as a novelty, rather than an important and necessary opportunity to increase their basic technology skills and to learn skills for serving community patrons. The tendency to have a diminished view of e-resource collections was also identified in a study conducted by Bertot and Davis (2006), who note that "the smaller the population served by the library, the less likely the library was to provide [technology] training for staff" (p. 6).

It is not enough for rural public libraries to purchase access to e-resources; they must also make e-resources accessible to their community members. When library staff are not confident in assisting patron's access e-resources, a serious information access problem is created because of the library staff's lack of technical abilities. Therefore, all rural public library staff need to develop at least a basic competency level with all the e-resources in the library's collection. Rural public library directors must take initiative to provide at least basic training, learning opportunities, and experiences to paraprofessional staff members. Although it can be challenging with budget limitations, rural public libraries must also make sure that they hire individuals who have basic technology skills or who are willing to learn basic technology skills through training opportunities.

### **Evidence-Based Research About Rural Public Library Staffing and Digital Inclusion**

Questions about public library staff technology training and skills have been addressed widely in published research. Paben and Fricke (2011) conducted a qualitative study to reveal the role that library staff play in connecting patrons with technology. They followed the socio-

technical systems theory, which states that the “human factor...is necessary if technology is to be useful” (Paben & Fricke, “Introduction,” para. 3). Paben and Fricke interviewed eight public library staff (from high school student workers to MLIS degree librarians) and seven patrons from two county systems to determine areas where patrons require the greatest amount of assistance with technology; how staff members acquire their technological knowledge; areas where library staff computer skills are strong or deficient; and steps for promoting an atmosphere where patrons and staff can share knowledge around technology training. Paben and Fricke found that most questions patrons ask are basic in nature and their needs are often immediate in nature. As more patrons request immediate, one-on-one assistance, instead of waiting for a formal class, there is an increase in the need for library staff qualified to provide technology instruction. They also found that the level of technology instruction that library staff provide is strongly related to the staff’s education level. The Paben and Fricke study further indicated that little formal training was available for library staff and suggested that informal mentoring from coworkers is one of the best ways for library staff to develop technology skills.

More recently, Real, Bertot, and Jaeger (2014) used the data from the 7,252 responses to the 2012 Public Library Funding and Technology Access Survey (PLFTAS) to analyze the challenges that rural public libraries face with technology and the impact of those challenges on rural patrons and communities. They found that rural public libraries have poorer technology infrastructure and offer fewer technology services and classes than other libraries. “Only 31.8% of rural libraries offer formal technology training classes, as compared to 63.2% of urban libraries” (Real et al., 2014, p. 7). The authors also reported that low staffing and training issues in rural libraries both contributed to the digital divide. In smaller rural libraries, only 14% of the employees have MLS degrees, and 37% of staff have only obtained a high school diploma. The

authors suggest that better funding needs to be allocated to rural public libraries, so that they can hire and train a sufficient number of staff to meet the technology needs of their communities.

Public library patrons depend on library staff to help them access e-resources. Bertot, Real, and Jaeger (2014) analyzed the results of the 2013 Digital Inclusion Survey. The survey included 4,480 public libraries, a representative sample that was stratified by state and metropolitan status and proportionate nationally. Overall, the digital divide is greater in rural areas, so rural libraries play an important role in bridging the digital divide and promoting digital inclusion. One area of the survey addresses e-resources: “96.3% of public libraries help patrons access and use online services and databases” (Bertot et al., 2014, p. 278). The authors note that informal, as-needed trainings were more common than formal training classes, appointments, or online training. However, rural libraries (26.3%) offered significantly fewer technology classes than city libraries (73.1%). The authors assert that fewer technology classes is related to rural libraries having fewer staff members, and that smaller populations make one-on-one assistance a more viable model of service. The growth of one-on-one assistance suggests that technology training cannot be left to one or two staff members, but that all library staff members need to develop at least a basic level of competency to assist patrons with e-resources.

Martzoukou and Elliott (2016) questioned the matter of digital inclusion in public libraries in North Carolina. They performed a qualitative analysis of multiple case studies by interviewing 14 librarians in four public libraries in North Carolina to determine the perspectives of librarians on digital inclusion and to evaluate the continuing professional development programs of the libraries regarding technology skills. The authors found that “all participants agreed that continuing education is very important and that it should be a priority with library management. Nevertheless, they expressed that in their libraries there was not enough formal

training for all employees” (Martzoukou & Elliot, 2016, p. 107). The authors also analyzed the course descriptions of MLIS programs to see if they adequately prepared professional librarians with the technology skills needed to address digital literacy. The researchers found that troubleshooting e-books was one of the two areas that was taught the least among the seven IT skills identified as important by the practicing public library staff. Martzoukou and Elliott note that with the growth of e-books, library staff spends more time providing technology instruction and support. These findings suggest that all libraries, including rural public libraries, need to develop more systematic technology training programs that include hands-on learning.

The use of self-directed, hands-on exploration of technology can be an effective method of professional development for public library staff according to Stephen’s (2014) analysis of the 23 Mobile Things self-paced modules as implemented in a public library in Denmark. Stephen conducted a pre- and post-program survey of the 54 staff members, looking at both quantitative and qualitative response data. The key findings were that staff confidence using applications on mobile devices increased from 46% feeling confident to 97%. Qualitative responses indicated that staff appreciated having a weekly guide and collaborating with peers. The biggest challenges found were: too high of a workload, technological problems, and lack of support. While this study focuses on only one public library in Denmark, it suggests that hands-on exploration of mobile technology and peer-mentoring are effective and low-cost strategies for professional development and that peer support is essential.

Leading change that results in improved public library e-resources and services in rural communities is an urgent matter. These studies published between 2011-2016 present research-based evidence that e-resources are important and are a core part of the libraries’ services. When taken together, these studies suggest actions that can be taken by library directors and other

supervising librarians to prepare library staff to assist patrons and to effectively use e-resources.

### **Leading Change in Rural Public Libraries**

To remain relevant in today's society, libraries need to adapt to new technologies. Research findings incorporated in this article indicate that community members rely on public librarians to assist them with e-resources. Unfortunately, multiple studies show that rural public libraries lag behind their urban counterparts in providing assistance with and access to e-resources (Bertot et al., 2016; Fischer, 2015; Rainie, 2016; Real et al., 2014).

The consequences of failing to provide necessary e-resource services are far-reaching in the areas of health, employment, and education. Almost half (48.3%) of rural library staff say that they lack the expertise to help patrons access job resources and apply for jobs online (Real et al., 2014). This has significant consequences considering that major retailers such as Walmart and an increasing number of agricultural businesses and meat packing plants, present in some rural communities, require online applications. Online health resources are offered by 76.8% of libraries, however those valuable resources are not accessible to all patrons if rural public library staff are not confident helping patrons use them (Bertot et al., 2015). Similarly, although online homework assistance is offered by 95.3% of libraries (Bertot et al., 2015) and many libraries offer continuing education e-resources to adults such as Lynda.com and LearningExpress Library, the value of those e-resources is lost if library staff do not support and view them as an integral part of their collections and services. When library staff are not confident with use of e-resources and are unable to assist patrons with them, they are not only wasting tax dollars, but they are also missing an important opportunity to make a positive impact on their community in the areas of education, employment, health, and digital inclusion.

To improve digital inclusion in rural communities, libraries must become invested in



training library staff so that they are empowered and equipped to provide assistance and support to patrons accessing e-resources. To provide quality, one-on-one technology assistance to library patrons, some important changes must occur. The following four-step action plan suggests ways rural public libraries can equip their staff to promote digital inclusion in their communities.

**Include technology competencies in hiring decisions and onboarding.** Library directors must require a basic level of competency with the library's e-resources of all library staff, including paraprofessional library staff. This is especially true in the rural setting where the part-time student worker or retiree may be the only person available to assist a patron. According to Fischer (2015), hiring employees with the right skills is difficult for many rural libraries (69.44%), mainly due to budgetary problems. Therefore, if it is not possible for a rural library to hire someone who already possesses basic technology competencies, rural library directors must ensure that the staff they hire are willing to learn the basic technology competencies and e-resource skills that are necessary to successfully serve the community. E-resource training needs to be included as an integral part of the onboarding process. As O'Connell & Haven (2013) points out, if e-resources are to be considered a core collection and service, library staff must be confident helping patrons access that collection, just as they are with the physical collection. Employing individuals who do not have technology skills, or who are not willing and able to learn new technology skills, is unacceptable hiring practice, wastes taxpayer money invested in providing e-resources, and has negative impacts on the educational and employment opportunities available to community members.

**Provide continual e-resource training for all staff.** Due to the changing nature of technology, e-resource training during the onboarding process is not enough. Ongoing staff training on e-resources must be part of the library's strategic plan. There are various approaches

for providing staff training. O'Connell and Haven (2013) suggest working with the State Library to provide an in-service on e-books, as well as the low-cost option of having staff attend the e-resource classes offered to the public to observe actual questions and problems. Martzoukou and Elliot (2016) suggest free online webinars and systematic training that can include staff meetings or lunch-and-learn sessions. Partnering with other local libraries to offer training together should also be considered. Providing professional development requires an investment of money and time when rural public library budgets are already tight (Fischer, 2015). However, as Martzoukou and Elliott (2016) point out, "in order for public libraries to continue to take the lead in developing digitally inclusive and literate communities, they have to be able to show concrete policies and plans for the development of their staff addressing digital literacy skills" (p. 113).

**Dedicate time for self-directed technology exploration.** Each library staff member begins a job with a different level of technology skills. Martzoukou and Elliot (2016) note that group training makes it hard to give enough attention to staff members with very different levels of digital literacy, but self-directed learning allows staff to learn at their own pace. The 23 Mobile Things study shows that self-directed experimentation and playing with mobile devices can help staff members feel more confident assisting patrons (Stephens, 2014). In addition, Robertson (2014) notes that hands-on exploration is more enjoyable to staff and maximizes the benefit from learning. For example, rural public libraries can select one e-resource each month for staff to explore. If a library is considering self-directed exploration of e-resources, it is important to make sure that staff have access to mobile devices and paid work time to explore. Ideally, paid time to explore would be a set amount of time each month in a non-public area "away from the constraints of continuous patron need" (Paben & Fricke, 2011, p. 18).

**Encourage peer technology mentoring.** Paben and Fricke (2011) found that library staff

see their coworkers as their primary resource for dealing with unfamiliar technology. Robertson (2014) notes that most staff prefer hands-on peer training to formal group training sessions. Peer technology training could be implemented in a variety of ways. In the 23 Mobile Things study (Stephens, 2014), peer *support cafes* were created for staff to ask each other questions. In rural libraries, peer support would likely not be as formalized, but staff could be encouraged to ask each other questions. Informal mentoring can also be encouraged by implementing a practical policy of having staff members “not only walk a patron through a technology problem, but also include any other staff members who were unable to assist that patron” (Paben & Fricke, 2011, p. 19). New library staff could be assigned a formal mentor to help them learn about the library’s e-resources.

### **Suggestions for Practice**

While the steps outlined in this action plan are feasible, rural public libraries may need to address some potential issues, or challenges, that this plan may present. It may be helpful for the library director to start by assessing the staff’s current knowledge and confidence with the e-resources and then tailor the training to focus on the areas of greatest need or differentiate the training for various staff members. Depending on the size of the library, this initial assessment could be done through informal conversations or a brief survey.

Some staff members may be resistant to learning new technologies if technology skills have not been expected of them before. Paying attention to the staff members’ learning styles may help alleviate some frustration. For example, some staff might prefer self-directed exploration of the library’s health databases whereas another might choose to watch a free webinar produced by the database vendor. Similarly, a mix of guidance or support and self-direction will be helpful. Staff may also feel there is a lot of information to remember, so a

brochure or handout on the basic steps for getting started with the library's e-resources can be both helpful for patrons and empowering for staff.

Another challenge is that each e-resource has a different platform and may have different authentication methods. Staff may become frustrated when platform interfaces change. A library technology trainer might reduce stress and anxiety by choosing to focus on just one e-resource each month. To make sure all the e-resources are covered, it would be wise to plan a rotation. However, library directors need to be flexible and willing to change technology-training plans in response to major platform updates, e-resource changes, or staff input. The trainings could start with a demonstration in a staff meeting, a handout, and a half hour of paid, self-directed exploration of the e-resource.

Make time and space for exploration. Ideally, the exploration time should be away from the circulation desk, unless there are slow enough periods to make it feasible in a public-facing position. Realistically, time away from the desk may not be possible in smaller libraries. Several options for dealing with this include allowing staff to come in before the library opens, staying after the library closes, or paying staff for a half hour of exploration at home each month (provided they have access to the appropriate technology to make that possible). While paying staff an extra half hour each month comes with a financial cost, this cost can be justified to the library board and city council using the evidence above and perhaps by sharing authentic stories of local community members who used the library's online resources to improve work skills and find a job.

Celebrating successes and recognizing staff efforts are an important part of making the implementation of this plan successful. Celebration and recognition help combat discouragement and also show staff that they are valued and that the training is considered important. The library

staff are the most valuable resource that library has, and they need to be equipped to successfully serve the public and promote digital inclusion in the community. In rural public libraries, those staff members are “often the only conduit connecting patrons with library-provided or library-supported technology, which to those who most need access may be complex and unfamiliar” (Paben & Fricke, 2011, p. 14).

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