This is a repository copy of *Digital competencies of public library professionals in England*.

White Rose Research Online URL for this paper:
https://eprints.whiterose.ac.uk/226174/

Version: Published Version

Article:

Digital competencies of public library professionals in England

Areej Asiri & Jayne Finlay

Published online: 10 Feb 2025.

Submit your article to this journal ⏎

Article views: 457

View related articles ⏎

View Crossmark data ⏎

Routledge
Taylor & Francis Group

Digital competencies of public library professionals in England

Areej Asiri and Jayne Finlay

Information School, The University of Sheffield, UK

ABSTRACT

This article describes a study on the digital competencies of public library professionals in England. Data was collected from 52 participants *via* an online questionnaire and results were analyzed using descriptive statistics. Results indicate that while the majority of staff feel confident using digital technologies and supporting library patrons, they lacked the confidence to use emerging technologies, to troubleshoot common technical issues and programming skills. Staff noted barriers to enhancing their digital skills, including reduced staffing and a lack of professional development opportunities. Recommendations are offered to enhance the digital competencies of public library staff in the UK and globally.

Introduction

Libraries have transformed from traditional repositories of books to dynamic hubs of digital resources and services. The widespread adoption of digital technology has significantly changed the way people access and use information. Public libraries have become important places that assist users to access digital services and electronic resources. According to IFLA–UNESCO Public Library Manifesto 2022, two of the key missions of public libraries are "providing services to their communities both in-person and remotely through digital technologies allowing access to information, collections, and programmes wherever possible" and supporting the development of "…digital literacy skills for all people at all ages…" (IFLA & UNESCO, 2022, p. 2). The UK Digital Strategy emphasizes that having the necessary digital skills is crucial for adults to engage in modern society (Department for Digital, Culture, Media & Sport [DCMS], 2022). The provision of digital skills learning opportunities has become a significant part of the services provided by many libraries (International Federation of Library Associations and Institutions [IFLA], 2020) and there is now an expectation that library staff should offer high-quality digital literacy sessions and teach patrons how to use new technologies (Barbuti et al., 2019; Palmer, 2022). To meet patrons' digital needs, library professionals should possess the essential digital skills to enhance user experiences.

Ensuring that library staff are sufficiently equipped to meet the digital needs of library users is a current priority among library organizations and professional bodies in the UK. Libraries Connected and the UK's Library and Information Association [CILIP] have produced a Public Library Skills Strategy [PLSS] 2017–2030. This strategy aims to provide guidance and assistance for addressing the learning and development requirements of the public library workforce in England (Society of Chief Librarians [SCL] & The Library and Information Association [CILIP], 2017). According to PLSS, digital literacy and information technology skills are necessary skills that public library staff need to acquire to provide expert services to library patrons (SCL &

CILIP, 2017). Therefore, possessing digital skills is crucial for assisting library patrons; however, given the dynamic nature of digital technology, librarians need to continually enhance their digital proficiency. According to The Library and Information Association (CILIP, 2018), one of the workforce development priorities for 2030 is creating Continuing Professional Development [CPD] and online education resources that assist information professionals in enhancing their digital skills. CPD is an obligation for library and information science (LIS) professionals working in a field where it is necessary to regularly update and widen knowledge and skills. This necessity is made clear in the most recent version of IFLA's Guidelines for Continuing Professional Development: "Constant flux in the needs of societies, changing technologies and growth in professional knowledge demand that librarians and other information professionals expand their knowledge and update their skills on an ongoing basis" (Varlejs, 2016, p. 1).

This article discusses findings of the first author's dissertation project, carried out as part of her Masters in Librarianship at the University of Sheffield. The study sought to address the following research question: *"How do public library staff in England perceive their level of digital literacy in the context of supporting the digital needs of library users?"* The study explored how equipped librarians currently feel to support their patrons, the digital skills required by library professionals to develop high-quality services and the time and opportunities public library staff get to develop their digital skills. Based on these findings, the author proposed recommendations for future practice in this area. Findings of this study provide a timely insight into both current and desired skills of public library staff in England and can be used to assist library administrators and professional bodies when formulating strategies for professional development and training. Although written within a UK context, the findings and recommendations are relevant to public library administrators beyond the UK and contribute to the wider discourse on the skills development of public library staff.

Literature review

Digital advancement in public libraries

A report by IFLA (2022) identifies digital transformation as one of the high-level trends in the library field. Palmer (2022) also recognizes that the adoption of technology is predicted to increase at an extremely rapid rate. The American Library Association [ALA] Center for the Future of Libraries identifies technology including artificial intelligence, blockchain, facial recognition, virtual reality, robots, drones, and the internet of things as one of the trends that influence libraries (ALA, 2014). Additional technological trends that impact libraries are online privacy, cyberbullying, fake news, fake information, graphic design, social media, media labs, and makerspaces (Lynch, 2019). A study by Serholt et al. (2018) provides insights into the opportunities associated with the adoption of digital technology in public libraries including saving staff time, shifting their focus on important tasks, reaching people who cannot come to the library, and contacting users directly to create digital communities. The adaption to digital technology in public libraries has not however been without challenges. Mthembu (2019) identifies some of these challenges as a lack of skilled librarians, insufficient financial resources, and limited Information and Communication Technology (ICT) resources. Based on evidence in existing studies, it is apparent that the increased use of digital technologies in public libraries offers exciting opportunities for library staff and benefits for library users but it is clear that library professionals require ongoing training opportunities to meet the evolving needs of their users.

The impact of Covid-19

More recent attention has focused on the acceleration of the use of digital technology in public libraries during the Covid-19 pandemic. A bibliometric study of LIS literature demonstrated that

the pandemic had a significant impact on all kinds of libraries and all aspects of the work of librarians worldwide (Yatcilla & Young, 2021). As the pandemic unfolded, public libraries rapidly started to transition many of their programs to online programs. Notable examples of remote library services and virtual programs include online loan services, online laboratories, online social platforms, digital reading groups, book clubs, book chats, story time, virtual programming, and weekly recorded story time (Goddard, 2020; Yatcilla & Young, 2021). Statistics showed a significant increase in the use of electronic resources offered by public libraries. For example, in the United States, the use of OverDrive to access e-book and audiobook collections increased at a rapid rate (Goddard, 2020) and in the UK, the DCMS (2020) noted a six-fold increase (600%) in registrations for digital borrowing and a four-fold increase (400%) in e-lending.

Digital competencies of public librarians

This rapid increase in the use of digital technology in libraries and evolving digital needs of library users necessitate that library staff have sufficient digital skills to support their users, and sufficient training to feel confident in doing so. Boffano (2019) reported that public libraries need to ensure new professionals possess basic digital skills in all digital competency areas to better assist patrons. A study by Borbély (2022) also notes that librarians should have advanced digital skills aligned with current trends in digital technology.

Some studies have already been conducted on the digital competencies of public library staff. A quantitative study by Hussain and Nayab (2021) investigated the ICT competencies of LIS professionals working in public libraries in Pakistan. They found that most of the staff were competent in using various operating systems, Microsoft Office programs, web-based applications, and library applications software. The researchers also note formal education was the most popular source for acquiring digital competencies for public library staff, whereas training by supplier was the least popular source (Hussain & Nayab, 2021). Another study by Borbély (2022) reported that studying Librarianship primarily enhances information and data literacy skills, while also providing advantages in some of the content development areas namely, content conversion, content production, and copyright. However, the staff represented in their study generally have weak programming skills (Borbély, 2022). A recent study by Borbély and Némethi-Takács (2023) noted that age and gender impact digital skills for librarians, however, the strength of the impact across different competency areas vary.

Professional development opportunities for public library professionals

Researchers have shown an interest in the importance of professional development for public library professionals. Borbély (2022) found that LIS degrees and training opportunities have a positive impact on the digital competencies level of public library staff. Conversely, a qualitative study by Martzoukou and Elliott (2016) reported that the majority of public library professionals noticed discrepancies between what they were taught in the library courses and how it applies to their job. Other studies have been critical of LIS education, showing that they do not adequately address the knowledge and skills required in the digital environment (Kacunguzi and Samuel, 2016; Burnett, 2013). Mthembu (2019) noted that there is a skills gap for LIS graduates due to changes in the library and information science market that require modifying and updating curricula. There is also a shortage of training opportunities to address the skills gap (Mthembu, 2019). It is evident that librarians need training to promote digital literacy and become proficient in meeting users' needs. Consequently, ongoing education, formal education, workshops, self-study, job training, and opportunities for professional development can be extremely valuable for librarians enabling them to keep up to date with digital technology, proficiently use it, and

transfer their technological knowledge to others (Borbély, 2022; Hussain & Nayab, 2021; Mthembu, 2019).

Adapting new technology in libraries requires library staff to develop new competencies and knowledge (Serholt et al., 2018). However, Hussain and Nayab (2021) report that public library staff experience difficulties acquiring digital skills due to a lack of professional development opportunities from professional associations, financial constraints, limited opportunities, lack of coordination among library staff, lack in-service training provision, lack of CPD opportunities policies, lack of technological resources, tight working schedule, and insufficiency of the library workforce.

Research context

This current study focuses on public libraries in England, where various strategies have been implemented by public library authorities to improve staff digital competencies. These strategies focus on equipping library staff with the necessary skills to assist users in using digital technologies. According to DCMS (2022), it is crucial to reskill the existing workforce since 80 per cent of the 2030 workforce is already employed. The CILIP Workforce Development Strategy 2019–2024 report points out the need to collaborate with relevant stakeholders to plan strategically to meet the sector's future skills needs (CILIP, 2018). As a part of CILIP's efforts to prepare the information workforce of the future, CILIP aims to "build a future-ready workforce with digital skills" (CILIP, 2018, p. 6). To achieve this, CILIP plans to work with relevant stakeholders to create a curriculum focus on digital skills for information professionals, conduct a review of how emerging technologies are affecting the information professional, enhance relationships with the technology sector, and lastly create CPD and e-learning resources specifically designed to help information professional in enhancing their digital skills (CILIP, 2018). In the strategic plan 2023–2027 report, Libraries Connected aims to integrate professional development into the annual work plan of each individual, backed by a specifically allocated budget (Libraries Connected, 2022).

Libraries Connected, in collaboration with Learning Pool, has provided e-learning training to 14,000 public library professionals, which accounts for 80% of the workforce, aiming to enhance their digital skills and confidence in using digital tools (Libraries Taskforce, 2016). In the Oxfordshire Digital Inclusion Project Report by Allmann et al. (2021), several recommendations were made to empower libraries to fulfill their roles in the digital age. One noteworthy recommendation suggests that enhancing the digital skills of library professionals is essential to deal with digital help requests from customers. This recommendation aligns with several existing studies in the literature, emphasizing the critical role of ongoing training for library professionals to meet the evolving needs of patrons (Borbély, 2022; Hussain & Nayab, 2021). Borbély and Némethi-Takács (2023) also note the importance of considering the difference in age and gender when designing training courses for public library staff to develop their digital competencies. Public library administrators and policymakers need to take into account such recommendations when designing digital integration strategies. By investing in professional development, public library staff can provide high-quality services that enhance user experiences.

Significance of current study

While several studies have highlighted the impact of digital technologies on public libraries and how Covid-19 accelerated the use of technologies in public libraries, there is a relatively small body of literature that is concerned with digital competencies for public library staff. Given all that has been mentioned so far, there are no recent studies that have investigated digital competencies for public library staff in England. Professional bodies such as CILIP and Libraries Connected recognize the need for librarians to have digital skills. Therefore, this research aims to explore how public library staff in England perceive their level of digital literacy in the context of

supporting the digital needs of library users. This is a timely piece of research that provides an insight into current perceived level of skills and potential gaps, while also giving a voice to public library staff in suggesting the training they need to effectively serve their users.

Methodology

Research design and data collection

This is a predominantly quantitative study, although a small amount of qualitative data was collected through open-ended answers in questionnaires. A questionnaire was deemed the most appropriate method to address the research question and to reach staff working across a large geographic area. The questionnaires available in studies by Ahmed and Rehman (2016) and Hussain and Nayab (2021) have helped to inform this study's questionnaire. As well as collecting demographic information about respondents, the questionnaire collected data about staff ability to use digital technology, their ability to meet patrons' digital needs and current and desired professional development opportunities within their organizations. Open-ended questions allowed respondents to express their views on the challenges they face in supporting the digital needs of library users, how public libraries could better support staff in improving their digital skills and the most important digital skills for public library staff to master in order to serve their users effectively. The questionnaire was created using Google Forms and consisted of multiple dichotomous questions and likert-scale questions. It was piloted by students on the MA Librarianship degree program at the University of Sheffield to ensure clarity of questions and to test how long it took to complete the questionnaire (Pickard, 2013). The final version of the questionnaire (Appendix A) was distributed to public library staff at the beginning of July 2023 and was active until the end of July 2023. This study received ethical approval from the University of Sheffield.

Participants

The target population for this questionnaire was determined to be both professionals and paraprofessionals working in the public library sector in England. This enabled collection of data about LIS education and how staff felt this education equipped them for their role, while also including the valuable perspectives of paraprofessional staff who work closely alongside library users. The questionnaire was distributed in various ways to reach this population. A recruitment email was sent to the JISCMail public libraries mailing list, which is an email discussion list for UK education and research communities (JISCMail, n.d.). The questionnaire was also distributed on an online Libraries Connected forum. Both the mailing list and forum are subscribed to by staff working in various roles within public libraries in the UK and were deemed the most efficient way to reach a wide pool of public library staff. Arguably, this means that respondents already had a certain level of digital literacy as they were clearly engaging with online discussion forums. In order to counter this, a paper questionnaire may have been more appropriate but was not feasible within the timeframe of this piece of research. Finally, the researcher directly contacted public libraries in England using publicly available email addresses with a request that the questionnaire be disseminated to staff members. The link to the questionnaire included an information sheet about the project (Appendix B). Participants were informed that by submitting their responses, they were consenting to take part in this project. A total of 52 public library staff responded to the questionnaire.

Data analysis

Descriptive analysis was used to analyze closed questions as this is useful for summarizing and interpreting quantitative data and helped to identify patterns and trends among the responses to closed

questions. As the size of the dataset was small, Microsoft Excel was used to generate descriptive statistics including percentages and frequencies. Open-ended responses were coded using basic thematic analysis with the aim of exploring recurring themes that occurred in responses to individual questions and gaining an insight into participants' views (Bryman, 2012). This thematic analysis provided an understanding of the participants' experiences, views, and suggestions. Integrating the findings from both closed-ended and open-ended questions resulted in a comprehensive picture of the research findings. Respondents are labeled R1–R52 throughout the article.

Results

Demographics information of participants

The demographic characteristics of participants in this study were analyzed to gain insight into the sample population. The study included a sample of 52 participants of varying age groups. The majority of the 52 respondents identified as female (65%), while 31% identified as male and 2% as non-binary. The educational backgrounds of respondents varied. Almost two thirds of respondents held a library and information science (LIS) qualification while 38% did not. The participants were working in various public libraries in England which provide a diverse representation of library locations. Among the fifty-two participants, 33% worked in South England, 23% worked in North England, and 21% worked in East England. The rest of the participants worked in Central England (13%) and West England (10%). Most of the respondents had worked in the field for many years, with 69% having at least 15 years of work experience.

Public library staff perceptions of their digital literacy level

Ability to use digital technology
When asked about their perceived ability to use digital technologies, it was found that the majority of respondents had a good level of digital literacy, as indicated by their frequent agreement with statements related to their digital skills and knowledge (statements from 1 to 6 in Figure 1). However, it is apparent from the below chart that some respondents were either unsure or disagreed with statements related to their ability to troubleshoot common technical issues related to library systems and their knowledge regarding emerging technologies such as Artificial Intelligence (AI), Virtual Reality (VR), and Machine Learning (statements 4 and 6 in Figure 1). The bottom of the chart below shows that a total of 98% of participants either strongly agreed or agreed digital literacy is important for public librarians in the digital age.

Ability to use digital tools and applications
As seen in Table 1, all participants were confident in using commonly used digital tools such as word processing software, internet browser, and email. However, it was found that there was a knowledge gap among staff members regarding coding software. As shown in the bottom of Table 2, only five out of fifty-two respondents were comfortable using programming software.

Ability to meet patrons' digital needs
When asked about their perceived ability to meet the digital needs of their patrons, most respondents agreed with statements related to supporting patrons with their daily computer needs, helping them use their digital devices and helping them to use new applications or digital devices (Figure 2). Fewer staff (52%) felt comfortable answering patrons' questions about emerging technologies.
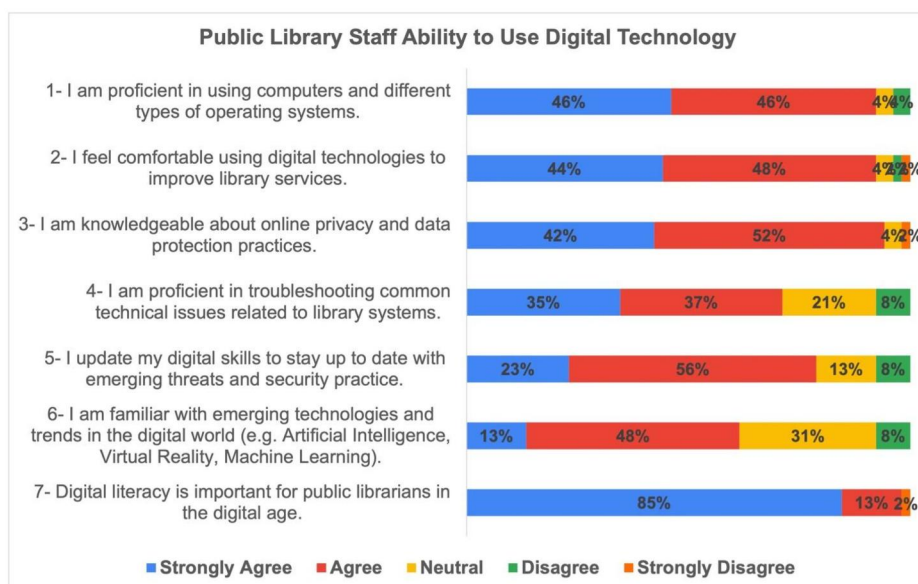
Figure 1. Public library staff ability to use digital technology.

Table 1. Digital tools and technologies that public library staff are comfortable using.

Digital tools and technologies that public library staff comfortable using	Frequency	Percentage
Word processing software (e.g., Microsoft Word/Google Docs)	52	100%
Internet browsers	52	100%
Using Email	52	100%
Spreadsheets software (e.g., Microsoft Excel/Google Sheets)	51	98%
Library Management Software	50	96%
Online Databases and Search Engines	49	94%
Social Media platforms (e.g., Facebook/Twitter/Instagram)	45	87%
Presentation Software (e.g., Microsoft PowerPoint/Google Slides)	45	87%
programming software (e.g., Visual Studio/Eclipse)	5	10%

Table 2. Current ways public library staff support patrons with their digital needs.

How do you currently support patrons with their digital needs?	Frequency	Percentage
One-to-One Support (in-person)	38	73%
Access to Digital Resources	28	54%
Assistance with digital devices (e.g., Laptops/tablets/smartphones/e-readers)	27	52%
I do not support patrons with their digital needs	9	17%
One-to-One Support (online)	8	15%
Creating Online Tutorials	8	15%
Providing Group Training	7	13%
Technology Training Sessions and workshops	7	13%
Digital Outreach Programs	6	12%
Creating Video guides	5	10%
Chat-based Assistance	4	8%
E-Learning Platforms	3	6%
Digital Literacy Programs	2	4%

Ways to support patrons' digital needs

The current ways public library staff support patrons with their digital needs are shown in Table 2. The majority of respondents (73%) offered one-to-one support (in-person). Over half of the participants (54%) helped patrons access digital resources and use digital devices such as laptops, tablets, smartphones, and e-readers. What stands out in Table 2 is that very few respondents support library users with their digital needs using digital software including creating online
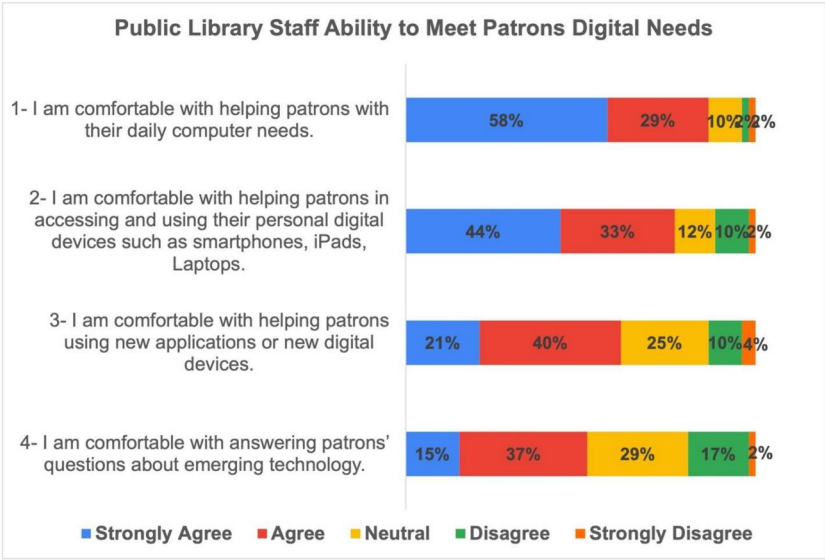
Public Library Staff Ability to Meet Patrons Digital Needs

1- I am comfortable with helping patrons with their daily computer needs. — Strongly Agree 58%, Agree 29%, Neutral 10%, Disagree 2%, Strongly Disagree 2%

2- I am comfortable with helping patrons in accessing and using their personal digital devices such as smartphones, iPads, Laptops. — Strongly Agree 44%, Agree 33%, Neutral 12%, Disagree 10%, Strongly Disagree 2%

3- I am comfortable with helping patrons using new applications or new digital devices. — Strongly Agree 21%, Agree 40%, Neutral 25%, Disagree 10%, Strongly Disagree 4%

4- I am comfortable with answering patrons' questions about emerging technology. — Strongly Agree 15%, Agree 37%, Neutral 29%, Disagree 17%, Strongly Disagree 2%

■ Strongly Agree ■ Agree ■ Neutral ■ Disagree ■ Strongly Disagree

Figure 2. Public library staff ability to meet patrons digital needs.

tutorials, offering online one-to-one support, creating video guides, and chat-based assistance. Only 4% of respondents used digital literacy programs to bridge the digital divide within their communities.

Digital skills for public librarians

Participants were asked which digital skills they felt were important for public library staff to master. The majority of respondents agreed that public library staff should have basic digital skills. R21 and R35 mentioned that staff should have the foundational level of digital literacy skills described within the Essential Digital Skills Framework. This framework is used by all individuals in the UK who are involved in assisting adults to improve their fundamental digital skills (Department of Education, 2018). Others made reference to the need for public library staff to keep up-to-date with new digital technologies to meet user needs. R45 made an important observation that the skills required can depend on your role and that *"it is important to acknowledge the distinctions between the many varied roles that public library staff carry out in order to identify what digital skills they require."* They added, *"Public library services are multi-faceted, depend on a whole-team approach to function efficiently, and require a plethora of different skills and specialisms."*

Professional development opportunities

Table 3 shows the diverse range of ways that public library staff currently use for skills development. Respondents primarily relied on self-study to acquire digital skills (85%) and 77% noted that they receive training at the workplace. Much fewer respondents (21%) acquired digital skills through formal LIS education.

Participants were asked to provide details of professional development opportunities available to them to develop their digital skills. Online training platforms and workplace training were the most common responses. Six respondents stated that they have access to CPD opportunities offered by professional associations such as Libraries Connected and CILIP. Only one participant mentioned access to *"formal IT upskilling courses"* (R6).

Table 3. Sources and methods public library staff used for acquiring digital skills.

Ways public library staff learned or acquired the digital skills needed for their jobs	Frequency	Percentage
Self-study	44	85%
Training at workplace	40	77%
Web-based tutorials	36	69%
Through colleagues	35	67%
Informal Education	32	62%
Attending workshops/seminars (Online)	31	60%
Attending workshops/seminars (In-person)	29	56%
Training by suppliers	25	48%
Formal Education (other than LIS education)	17	33%
Formal LIS Education	11	21%

Commenting on the type of digital skills training offered by public libraries, one respondent stated that *"Occasional workplace training but tends to be basic and in a work context rather than relevant for supporting the public or delivering workshops for library groups…"* (R45) and another reported that *"There is training for using our digital resources but for more general digital skills there isn't any"* (R24). In terms of the level of digital skill training, some participants felt that the training available was not suitable for their digital competencies level as noted by R21 *"At my level of competency not much…"* (R21) and by R40 *"Nothing at my level"* (R40). Surprisingly, some participants stated that they either did not have professional development opportunities or had little *"Not many, despite frequent requests by staff members"* (R42). One respondent argued that *"…professional development no longer exists in the public sector, other than as occasional lip-service initiatives"* (R43). R8 commented that *"Professional development is cost/time prohibitive for both employer and employee"* (R8).

Key themes in open-ended responses

The thematic analysis of open-ended responses revealed several recurring themes related to the challenges public library staff face in supporting the digital needs of library users and how public libraries can better support staff in improving their digital skills. Regarding challenges, respondents highlighted a range of challenges they face in supporting the digital needs of library users. The most frequently mentioned issues included lack of staff, lack of up-to-date digital devices, lack of time, lack of funding, and lack of training. In terms of supporting staff in enhancing their digital skills, respondents shared suggestions for how public libraries could better support them in improving their digital competencies. The most common recommendations included providing regular training opportunities, allocating time for training, providing access to new resources, allocating budget for training, hiring more staff, and creating written development policies. While the quantitative analysis provided an overview of the staff's perception of their digital literacy level, the thematic analysis revealed underlying issues and areas for improvements. The following sections present the findings from the thematic analysis of open-ended responses in detail.

Challenges faced by public library professionals

The majority of participants noted that lack of up-to-date digital devices and software, lack of staff, lack of time, lack of funding, and lack of training were the main challenges they faced in supporting the digital needs of library users. The main challenges were best summarized by R46:

> The public library sector faces serious problems with digital services, due to a lack of funding. This makes it difficult for libraries to provide up-to-date digital provisions, such as public PCs and good wi-fi connections. We also suffer from a lack of staff resources, which makes it difficult to spend a decent

amount of time helping library patrons, particularly those who struggle the most with digital provisions or do not understand how to use council and library services online. (R46)

R43 commented that public libraries relied on "… *new young staff to plug the gaps…*" (R43) instead of "…*upskill current staff members…*" (R43). This had an impact on the services provided to library users. This issue was also identified by R38:

> There is no training for staff to up skills their digital skills, especially staff who have been in the service for decades, they are not able to help with the digital queries of higher complexity, this issue is lack of official training, compulsory digital courses etc, it is challenging if not everyone in the team is highly digitally competent, and there is no attempt to ensure the correct regular up skilling is in place, this will have impact on service provided to patrons, also the lack of time whilst carrying out other duties will have impact. (R38)

Commenting on challenges in acquiring digital skills, it was found that two respondents (R51 and R45) faced challenges in finding the training that they need so they relied on self-learning. R51 stated that "…*there is no librarian STEM bootcamp*" in order to help librarians to acquire "… *knowledge of e.g. 3D printing, coding, small peripherals like Micrbobits, Raspberry Pis etc …*" to "… *support kids STEM activities …*". Another respondent reported that "*The skills I require are niche to my specific area of librarianship and it is not widespread enough among the wider workforce for courses to be developed/delivered so I have to effectively seek my own learning opportunities or teach myself*" (R45).

Staff suggestions for improved training opportunities

When the participants were asked about how public libraries can better support their staff in enhancing their digital skills, the majority of participants commented that they wanted public libraries to provide regular training opportunities. In order to train staff, a number of participants expressed a desire for allocating time for training, providing access to new resources, allocating a budget for training, and hiring more staff. However, there were challenges public libraries face in providing training. The challenges were best summarized by (R13):

> There is a fundamental problem with how public libraries provide training across skills areas due to the tight budgets and lack of staff time. Methods that were previously used such as in person networking and courses are now impossible as staff cannot be released from frontline duties. This will be a difficult problem to solve as it requires a change in approach across the sector needing leadership from Libraries Connected and CILIP and buy in from individual library authorities (R13).

R48 argued that "… *Staff are more often forced into having to learn digital skills on the job, with customers, rather than have allocated training time to learn new skills*" (R48). Public libraries have to be "… *interested in staff needs in terms of training and learning new skills. Not rely on few staff who will do everything*" (R48). In order to better support public library staff, one respondent suggested "*Creating written development policies that need to be updated and reviewed regularly…*" (R38) and another commented that public libraries need to give staff "… *the time and resources to be able to carry out proper learning and encourage a culture of CPD…*" (R45). This can be done by "… *providing MORE staff to enable staff to be freed up to undertake training in addition to their daily tasks*" (R44). Finally, one respondent commented that "… *librarianship (and indeed most modern professions) have moved into the digital age and that a wide range of digital skills is essential, not optional…*" (R45).

Discussion

Public library staff perceptions of their digital competencies

The public library staff's perceptions of their ability to use digital technology and meet users' digital needs explored in this research was outlined in the previous section. There are, however,

some interesting findings regarding public library professionals' digital competencies. Perhaps the most interesting finding is that the majority of public library staff in this study feel confident using basic digital technologies tools such as Microsoft Office applications, web-based applications, Library Management Software, and different operating systems to meet patrons' digital needs. This result seems to be consistent with other research which found that professionals working in public libraries in Pakistan were competent in using the same tools (Hussain & Nayab, 2021). Another interesting finding is that some staff are not comfortable troubleshooting common technical issues and answering users' questions regarding emerging technologies such as Artificial Intelligence (AI), Virtual Reality (VR), and machine learning, pointing to a possible lack of knowledge in these areas. In reviewing the literature, it has been noted that a wide range of digital initiatives are supported by public libraries such as Code Clubs, Code Green, and Science, Technology, Engineering and Mathematics [STEM] agenda (Libraries Taskforce, 2016). This does not appear to be the case for libraries represented in this study because only one respondent provided "*coding and STEM learning opportunities to children and families*" (R45) and only 10% of staff are comfortable using programming software, pointing to a possible lack of knowledge in coding skills. These results reflect those of Borbély (2022) who also found that there is a lack of programming skills among public library staff in Hungary. Overall, these results give insights into how public library staff in England perceive their digital literacy level. It is apparent that staff need further training in troubleshooting common technical issues related to library systems, emerging technologies, and programming skills. While these results should be taken into account when considering developing training opportunities for library staff, it is important to know what area of emerging technologies and programming skills public library staff need training on.

Even though the majority of participants perceive themselves as confident in using digital technologies and meeting patrons' digital needs, only 4% of staff used digital literacy programs to bridge the digital divide within their communities. This finding is somewhat surprising given the fact that other research emphasizes the importance of offering digital literacy education for public library patrons (IFLA, 2020; Libraries Taskforce, 2016; Palmer, 2022). One of the key missions of public libraries is to support the development of "… digital literacy skills for all people at all ages…" (IFLA & UNESCO, 2022, p. 2). This does not appear to be the case for participants in this study. A possible explanation for this finding might be the staff do not have time, tools, or resources to offer digital literacy programs. Another possible explanation could be that public libraries may not support digital literacy program provisions. It is not clear why staff do not offer digital literacy programs to bridge the digital divide within their communities even though they feel confident using digital technologies and meeting patrons' digital needs. A further study with more focus on exploring digital literacy programs in public libraries in England is therefore suggested.

Digital skills required for public library professionals

The importance of digital literacy skills for public library professionals is evident from the collected data. Almost all participants in this study (98%) agreed that digital literacy is important for public library staff. In the PLSS 2017–2030 report, digital literacy and information technology skills are included in the public library skills framework and considered important skills for public library staff to meet future needs (SCL & CILIP, 2017). When the staff were asked to provide their opinion about what digital skills they think are the most important for public library staff to master in order to serve their users effectively, the majority agreed that public library staff should have basic digital skills. This finding is consistent with that of Boffano (2019) who reported that public librarians expressed a desire for a basic level of digital competencies among professionals working in public libraries. In particular, R21 and R35 mentioned that the public library staff needs to have the foundational level of digital literacy skills described within the Essential Digital

Skills Framework. In the United Kingdom, the Essential Digital Skills Framework is used as a guideline to identify the core digital skills that adults need to use technologies in various aspects of their lives (Department of Education, 2018). The Essential Digital Skills Framework could be used by public libraries authorities and professional associations as a base to design training programs for library staff. This framework could also be used by public library staff to offer digital literacy programs for library users.

Current time and opportunities for professional development

One of the workforce development priorities for 2030 is creating Continuing Professional Development [CPD] and online education resources that assist information professionals in enhancing their digital skills (CILIP, 2018). Based on this study's findings, however, these CPD and online education resources are not currently sufficient to assist public library professionals to keep pace with technological advancements. This study found that public library staff face many challenges in their pursuit of digital proficiency. The primary challenge that the majority of public library staff encounter is difficulties in finding dedicated time for upgrading their digital skill because of their tight working schedules. *"Staff are more often forced into having to learn digital skills on the job, with customers, rather than have allocated training time to learn new skills"* (R48). The second challenge found in this study is the lack of sufficient staff working in the library. This finding was also reported by Mthembu (2019) who noted that staff shortage is one of the issues that public libraries encounter. The third challenge found in this study is limited opportunities for CPD. This finding was also reported by Hussain and Nayab (2021). Several staff expressed a desire for allocating *"… time and resources to be able to carry out proper learning and encourage a culture of CPD…"* (R45), and *"… providing MORE staff to enable staff to be freed up to undertake training in addition to their daily tasks"* (R44). These findings should be taken into account when developing policies and strategies for professional development opportunities.

Turning now to the current professional development opportunities available for public library staff from their libraries to develop their digital skills. One surprising finding that stands out from the results reported earlier is that some staff either do not have professional development opportunities *"There is no training for staff to upskill their digital skills, especially staff who have been in the service for decades …"* (R38) or have little *"Not many, despite frequent requests by staff members"* (R42). Even staff who have workplace training opportunities noted that training *"tends to be basic and in a work context rather than relevant for supporting the public or delivering workshops for library groups"* (R45). Also, *"there is no attempt to ensure the correct regular up skilling is in place"* (R38). These findings are in agreement with Mthembu's (2019) finding which found that there is a shortage of training programs in public libraries to address the skills gap. This study found that the majority of staff primarily rely on self-study to acquire digital skills, perhaps due to a lack of training opportunities. Another surprising finding is that only 21% of the staff acquired digital skills through formal LIS education even though 62% of staff have LIS qualifications. This finding is contrary to that of Hussain and Nayab (2021) who found that more than half of the staff (51%) working in public libraries in Pakistan acquired digital skills through formal LIS education. It is worth noting that there are studies in the current literature which have identified a skills gap for LIS graduates due to technological developments that require modifying and updating the LIS curriculum (Mthembu, 2019) and public librarians noted that there are gaps between what they thought in the library courses and how it applies to their job (Martzoukou & Elliott, 2016). The findings of this study build on existing evidence of a lack of training programs for public library staff and a lack of digital literacy in LIS qualification programs. The researcher suggests that public libraries provide ongoing training opportunities and LIS schools revise their curricula to produce digitally equipped LIS professionals.

Public library professionals recommendations

"Digital skills and competencies are not static; they change rapidly due to technological advancements" (Broadband Commission for Sustainable Development, 2017, p. 27). As digital technology evolves, it is not sufficient to only enhance staff digital literacy skills but also provide regular training opportunities to keep up to date with new digital technologies. This study found that the majority of staff want public libraries to provide regular training opportunities. Public library staff want to keep up to date with new digital technologies to meet users' needs (R4, 7, 36, and 39). These findings were also reported by Martzoukou and Elliott (2016). In order to better support public library staff, this study found that a number of staff express a desire for allocating time for training, providing access to new resources, allocating a budget for training, and hiring more staff. In the strategic plan 2023–2027 report, Libraries Connected aims to integrate professional development into the annual work plan of each individual, backed by a specifically allocated budget (Libraries Connected, 2022). This helps staff to have time and resources for upgrading their digital skills. Another staff member suggests *"Creating written development policies that need to be updated and reviewed regularly … "* (R38). This finding is consistent with that of Martzoukou and Elliott (2016) who recommended that every public library develop a strategy that includes specific policies for educating library staff in digital literacy and inclusive training through professional development. Public libraries administrators and policymakers need to take into account such recommendations when designing digital training strategies. By investing in professional development, public library staff can provide high-quality services that enhance user experiences.

Conclusion and recommendations

This study has shown that the majority of public library staff in England perceive themselves to be confident in using basic digital technology tools to support users' basic digital needs. However, lack of up-to-date digital devices and software, lack of staff, lack of time, lack of funding, and lack of training prevents staff from providing high-quality services to library patrons. It was also discovered that there is a lack of knowledge of troubleshooting technical issues, emerging technologies, and programming skills among staff. Public library staff currently face challenges when trying to enhance their digital skills as they do not have adequate time for professional development and public libraries often do not or cannot support them to improve their skills. It was also discovered that staff rely on self-study to enhance their digital skills. Notably, the staff highlighted a need for ongoing professional development opportunities to ensure that public library staff remain abreast of rapidly evolving digital trends. In order to train staff, public library professionals expressed a desire for allocating time for training, providing access to new resources, allocating a budget for training, and hiring more staff.

Building on the findings of this research, several recommendations for future practice are proposed. The first recommendation is to include continuing professional development [CPD] that focuses on digital competencies in the annual work plan for all public library staff. This recommendation aligns with Libraries Connected strategic plan 2023–2027. Libraries Connected aims to enhance team skills by incorporating professional development into the annual work plan of every staff (Libraries Connected, 2022). The second recommendation is that as CILIP is planning to create CPD and e-learning resources specifically designed to help information professionals in enhancing their digital skills (CILIP, 2018), it is recommended using the Essential Digital Skills Framework (Department of Education, 2018) as a base for designing the training programs. The third recommendation is that LIS schools increase their level of collaboration with professional bodies (such as Libraries Connected) to improve their curriculum and ensure that it helps to equip future public library workers with the skills required to work in the profession. This

recommendation aligns with CILIP's plan to work with relevant stakeholders to create a curriculum focused on digital skills for information professionals (CILIP, 2018). The fourth recommendation is to give public library staff time and up-to-date digital technologies so they can provide high-quality services to library users. The last recommendation is that every public library needs to create written policies for offering ongoing training opportunities for library staff based on public library staff and patrons' needs and update these policies regularly. This is quite similar to a recommendation by Martzoukou and Elliott (2016) who recommended that every public library develops a strategy that includes specific policies for educating library staff in digital literacy and inclusive training through professional development.

This is a small-scale study but one which offers a good indication of the digital competencies and the training needs of public library staff in England. Perhaps more significantly, it offers recommendations based on the perceptions and insights of those at the frontline of public library services. The findings and recommendations will be of value to professional LIS bodies, organizations and library schools as they seek to address the training needs of public library staff. It also adds to the wider evidence base of the digital skills and professional development needs of people working in the public library sector.

Disclosure statement

ORCID

Jayne Finlay 🔟 http://orcid.org/0000-0002-4679-0365

References

Ahmed, S., & Rehman, A. U. (2016). Perceptions and level of ICT competencies: A survey of librarians at public sector universities in Khyber Pakhtunkhwa, Pakistan. *Pakistan Journal of Information Management and Libraries*, *18*(1), 01–11. https://doi.org/10.47657/2016181951

Allmann, K., Blank, G., & Wong, A. (2021). *Libraries on the front lines of the digital divide: The Oxfordshire digital inclusion project report*. https://www.law.ox.ac.uk/sites/files/oxlaw/digital_inc_project_report_a4_final.pdf

American Library Association. (2014). *Trends*. https://www.ala.org/future/trends (Accessed January 26, 2025).

Barbuti, N., Di Giorgio, S., & Valentini, A. (2019). The project BIBLIO – boosting digital skills and competencies for librarians in Europe: An innovative training model for creating digital librarian. *International Information & Library Review*, *51*(4), 300–304.) https://doi.org/10.1080/10572317.2019.1669935

Boffano, A. (2019). *Public libraries and digital competences A mixed-method analysis of job ads and professional views* [University of Borås]. https://digital-skills-jobs.europa.eu/en/latest/news/librarians-share-experience-promoting-digital-skills

Borbély, M. (2022). Public library digital competency mapping 2019: A survey on digital skills of library professionals with different qualifications. *Frontiers in Education*, *7*, 1–8. https://doi.org/10.3389/feduc.2022.909502

Borbély, M., & Némethi-Takács, M. (2023). Digital competence landscape in public libraries: Examining the role of age and gender in the development of digital skills. *Performance Measurement and Metrics*, *24*(3/4), 155–175. https://doi.org/10.1108/PMM-03-2022-0012

Broadband Commission for Sustainable Development. (2017). *Working Group on education: digital skills for life and work*. https://broadbandcommission.org/wp-content/uploads/2021/09/WG-Education-Report2017.pdf

Burnett, P. (2013, June 30). *Challenges and problems of library and information science education in selected African countries*. IFLA World Library and Information Congress (WLIC) 2013, Singapore. https://library-ifla-org.webpkgcache.com/doc/-/s/library.ifla.org/175/1/199-burnett-en.pdf

Bryman, A. (2012). *Social research methods* (4th ed.). Oxford University Press.

CILIP. (2018). *CILIP Workforce Development Strategy 2019–2024*. CILIP. https://cdn.ymaws.com/www.cilip.org.uk/resource/resmgr/cilip_new_website/research/cilip_workforce_development_.pdf

Department for Digital, Culture, Media & Sport. (2022). *UK digital strategy*. GOV.UK. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1089103/UK_Digital_Strategy_web_accessible.pdf

Department of Education. (2018). *Essential digital skills framework*. GOV.UK. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/738922/Essential_digital_skills_framework.pdf

Goddard, J. (2020). Public libraries respond to the COVID-19 pandemic, creating a new service model. *Information Technology and Libraries*, 39(4), 1–4. https://doi.org/10.6017/ital.v39i4.12847

Hussain, M., Nayab, S. (2021). Assessment of ICT competencies of LIS professionals in public libraries of Khyber Pakhtunkhwa: A quantitative study. *Library Philosophy and Practice (e-Journal)*. https://digitalcommons.unl.edu/libphilprac/5661

IFLA, & UNESCO. (2022). *IFLA-UNESCO public library manifesto 2022*. https://repository.ifla.org/bitstream/123456789/2006/1/IFLA-UNESCO%20Public%20Library%20Manifesto%202022.pdf

International Federation of Library Associations and Institutions. (2020). *Libraries in Digital skills policies*. https://www.ifla.org/wp-content/uploads/2019/05/assets/hq/topics/info-society/documents/libraries_in_digital_skills_policies.pdf

JISCMail (n.d.). *Email discussion lists for the UK education and research communities*. https://www.jiscmail.ac.uk

Kacunguzi, D. T., & Samuel, N. (2016). Assessment of Nigerian and Ugandan LIS programs in meeting the demands of the digital age. *Qualitative and Quantitative Methods in Libraries*, 5, 711–719.

Libraries Connected. (2022). *Strategic planning 2023-2027*. https://www.librariesconnected.org.uk/resource/libraries-connected-strategic-plan-2023-27

Libraries Taskforce. (2016). *Libraries deliver: Ambition for public libraries in England 2016-2021*. GOV.UK. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/573911/Libraries_Deliver_-_Ambition_for_Public_Libraries_in_England_2016_to_2021.pdf

Lynch, J. (2019). *Library tech trends for 2019*. https://blog.techsoup.org/posts/library-tech-trends-for-2019

Martzoukou, K., & Elliott, J. (2016). The development of digital literacy and inclusion skills of public librarians. *Comminfolit*, 10(1), 99. https://doi.org/10.15760/comminfolit.2016.10.1.17

Mthembu, M. (2019). Job requirements and challenges of LIS graduates in public libraries: A literature review. *Library Philosophy and Practice (e-Journal)*. https://digitalcommons.unl.edu/libphilprac/2772

Palmer, M. (2022). Study of future public library trends & best practices. *Public Library Quarterly*, 41(1), 83–107. https://doi.org/10.1080/01616846.2020.1868224

Pickard, A. J. (2013). *Research methods in information* (2nd ed.). Neal-Schuman.

Serholt, S., Eriksson, E., Dalsgaard, P., Bats, R., & Ducros, A. (2018 *Opportunities and challenges for technology development and adoption in public libraries* [Paper presentation]. NordiCHI 2018: Proceedings of the 10th Nordic Conference on Human-Computer Interaction (pp. 311–322). https://doi.org/10.1145/3240167.3240198

Society of Chief Librarians [SCL], & The Library and Information Association [CILIP]. (2017). *Public library skills strategy*. https://www.cilip.org.uk/page/PublicLibrarySkillsStrategy

The Library and Information Association. (2018). *CILIP workforce development strategy 2019-2024*. The library and information association. https://cdn.ymaws.com/www.cilip.org.uk/resource/resmgr/cilip_new_website/research/cilip_workforce_development_.pdf

Varlejs, J. (2016). *IFLA guidelines for continuing professional development: Principles and best practices*. IFLA. https://www-ifla-org.webpkgcache.com/doc/-/s/www.ifla.org/files/assets/cpdwl/guidelines/ifla-guidelines-for-continuing-professional-development.pdf

Yatcilla, J. K., & Young, S. (2021). Library responses during the early days of the pandemic: A bibliometric study of the 2020 LIS literature. *Journal of Library Administration*, 61(8), 964–977. https://doi.org/10.1080/01930826.2021.1984139

Appendix A: Online questionnaire

Digital Competencies for Public Library Staff in England

Dear Library Staff Member,

I am surveying librarians in the public library sector in England by using an online questionnaire. The questionnaire will be used to collect data regarding the current digital competencies for librarians and opportunities for professional development from their organisation. In addition, the questionnaire will be used to collect data about staff views on their ability to use digital technology, meet patrons' needs using digital tools, and help patrons to use technology.

The research aims to explore the level of digital competencies of public library staff in England to provide high-quality services to users in a rapidly evolving digital environment. This research project is a requirement for the degree of Master of Arts in Librarianship. Please click here to view the full information sheet.

It is up to you to decide whether or not to take part. If you do decide to take part, will be asked for your consent before completing the questionnaire. You can withdraw from the questionnaire any time before clicking 'submit' on the final page. The questionnaire will take around 15 minutes to complete.

* Indicates required question

Contact for further information
If you require further information or have any questions, please see the contact information here.

- Areej Ali A Asiri, MA Librarianship Student (aaaasiri1@sheffield.ac.uk)
- Dr Jayne Finlay, Dissertation Supervisor (jayne.finlay@sheffield.ac.uk)

Thank you for considering participating in this study. Your contribution is highly valued and will aid in advancing knowledge in the public library field.

Consent Form

The questionnaire is fully anonymous. You can withdraw from the questionnaire anytime before clicking 'submit' on the final page. You do not have to give any reason for why you no longer want to participate and there will be no adverse consequences if you choose to withdraw. After submitting the questionnaire, your answers will be recorded and you can no longer withdraw from the study. Please click here to view the full consent form and please read through it carefully before moving on to the questionnaire.

1. I agree to take part in the research project as described above. *

   Mark only one oval.

   ○ Yes, I agree to participate

   ○ No, I do not agree to participate

   Demographic Information

2. Age *

   Mark only one oval.

   ○ Under 25 Years

   ○ 25 - 29 Years

   ○ 30 - 34 Years

   ○ 35 - 39 Years

   ○ 40 - 44 Years

   ○ 45 - 49 Years

   ○ 50 - 54 Years

   ○ 55 - 59 Years

   ○ 60 Years and above

3. Gender *

   Mark only one oval.

   ○ Male

   ○ Female

   ○ non-binary

   ○ prefer not to say

4. Qualifications *

   Mark only one oval.

   ○ High School Diploma or Equivalent

   ○ Bachelor's Degree

   ○ Master's Degree

   ○ Doctorate (Ph.D) Degree

   ○ Postgraduate Diploma

   ○ Currently on LIS Course

   ○ Other: _____

5. Have you undertaken a professional LIS qualification? *

   Mark only one oval.

   ○ Yes

   ○ No

6. Current Job Title *

   Mark only one oval.

   ○ Library Manager or Director

   ○ Senior Librarian

   ○ Librarian

   ○ Library Assistant

   ○ Information Technology Specialist

   ○ Archivist

   ○ Media Specialist

   ○ Circulation Supervisor

   ○ Collection Development Librarian

   ○ Children's & youth Librarian

   ○ Digital Services Librarian

   ○ Interlibrary Loan Specialist

   ○ Reference Librarian

   ○ Other: _____

7. How many years of experience do you have working in public library sector? *

   Mark only one oval.

   ○ Less than 2 Years

   ○ 2 - 5 Years

   ○ 6 - 9 Years

   ○ 10 - 14 Years

   ○ 15 - 19 Years

   ○ 20 - 24 Years

   ○ More than 25 years

8. Library Type *

   Mark only one oval.

   ○ Central Library

   ○ Branch Library

   ○ Community Library

   ○ Other: _____

9. Library Location *

   Mark only one oval.

   ○ Central England

   ○ North England

   ○ South England

   ○ West England

   ○ East England

   Ability to Use Digital Technology

10. Which of the following digital tools and technologies are you comfortable using? (Select all that apply)

Tick all that apply.

☐ Internet browsers
☐ Word processing software (e.g. Microsoft Word, Google Docs)
☐ Spreadsheets software (e.g. Microsoft Excel, Google Sheets)
☐ Presentation Software (e.g. Microsoft PowerPoint, Google Slides)
☐ Social Media platforms (e.g. Facebook, Twitter, Instagram)
☐ Using Email
☐ Online Databases and Search Engines
☐ Library Management Software
☐ programming software (e.g. Visual Studio, Eclipse)
☐ Other: _____

11. I am proficient in using computers and different types of operating systems *

Mark only one oval.

○ Strongly Disagree
○ Disagree
○ Neutral
○ Agree
○ Strongly Agree

12. I feel comfortable using digital technologies to improve library services. *

Mark only one oval.

○ Strongly Disagree
○ Disagree
○ Neutral
○ Agree
○ Strongly Agree

13. Digital literacy is important for public librarians in the digital age. *

Mark only one oval.

○ Strongly Disagree
○ Disagree
○ Neutral
○ Agree
○ Strongly Agree

14. I am knowledgeable about online privacy and data protection practices. *

Mark only one oval.

○ Strongly Disagree
○ Disagree
○ Neutral
○ Agree
○ Strongly Agree

15. I update my digital skills to stay up to date with emerging threats and security practice. *

Mark only one oval.

○ Strongly Disagree
○ Disagree
○ Neutral
○ Agree
○ Strongly Agree

16. I am proficient in troubleshooting common technical issues related to library systems. *

Mark only one oval.

○ Strongly Disagree
○ Disagree
○ Neutral
○ Agree
○ Strongly Agree

17. I am familiar with emerging technologies and trends in the digital world (e.g. Artificial Intelligence, Virtual Reality, Machine Learning).

Mark only one oval.

○ Strongly Disagree
○ Disagree
○ Neutral
○ Agree
○ Strongly Agree

Ability to Meet Patrons' Need

18. I am comfortable with helping patrons with their daily computer needs. *

Mark only one oval.

○ Strongly Disagree
○ Disagree
○ Neutral
○ Agree
○ Strongly Agree

19. I am comfortable with helping patrons in accessing and using their personal digital devices such as smartphones, iPads, Laptops.

Mark only one oval.

○ Strongly Disagree
○ Disagree
○ Neutral
○ Agree
○ Strongly Agree

20. I am comfortable with answering patrons' questions about emerging technology. *

Mark only one oval.

○ Strongly Disagree
○ Disagree
○ Neutral
○ Agree
○ Strongly Agree

21. I am comfortable with helping patrons using new applications or new digital devices. *

Mark only one oval.

- ◯ Strongly Disagree
- ◯ Disagree
- ◯ Neutral
- ◯ Agree
- ◯ Strongly Agree

22. How often do you help library patrons with digital inquiries? *

Mark only one oval.

- ◯ Daily
- ◯ Several Times a Week
- ◯ Once a Week
- ◯ Occasionally
- ◯ Rarely

23. How do you currently support patrons with their digital needs? (Select all that apply) *

Tick all that apply.

- ☐ One-to-One Support (in-person)
- ☐ One-to-One Support (online)
- ☐ Providing Group Training
- ☐ E-Learning Platforms
- ☐ Chat-based Assistance
- ☐ Digital Outreach Programs
- ☐ Digital Literacy Programs
- ☐ Technology Training Sessions and workshops
- ☐ Assistance with digital devices (e.g. Laptops, tablets, smartphones, e-readers)
- ☐ Access to Digital Resources
- ☐ Creating Online Tutorials
- ☐ Creating Video guides
- ☐ I do not support patrons with their digital needs
- ☐ Other: _____

24. What are the main challenges you face in providing high-quality digital services to library users?

_____
_____
_____
_____
_____

Sources and Methods used for Acquiring Digital Competencies

25. Where have you learned or acquired the digital competencies needed for this job? (Select all that apply)

Tick all that apply.

- ☐ Formal Education (other than LIS education)
- ☐ Formal LIS Education
- ☐ Informal Education
- ☐ Through colleagues
- ☐ Self-study
- ☐ Training at workplace
- ☐ Training by suppliers
- ☐ Attending workshops/seminars (In-person)
- ☐ Attending workshops/seminars (Online)
- ☐ Tours of other institutions
- ☐ Web-based tutorials
- ☐ Other: _____

26. What types of professional development opportunities are available to you to develop your digital skills?

_____
_____
_____
_____

The Areas that training are required

27. Do you actively seek opportunities to enhance you digital literacy skills? *

Mark only one oval.

- ◯ Yes, regularly
- ◯ Occasionally
- ◯ Rarely
- ◯ Never

28. What are the areas that you require training on? (Select all that apply) *

Tick all that apply.

- ☐ Bibliographic resources
- ☐ Online Cataloguing
- ☐ E-journals, e-book
- ☐ Online Databases
- ☐ Internet tools and techniques
- ☐ Searching techniques and strategies
- ☐ Library automation software packages
- ☐ Digital library and institutional repository software
- ☐ Evaluation of online information resources
- ☐ Social networks
- ☐ Online classification
- ☐ Library of Congress Subject Headings (LCSH)
- ☐ Web Dewey
- ☐ Application software (Microsoft Office)
- ☐ Library web page designing for library marketing
- ☐ Other: _____

Challenges in Acquiring Digital Skills

29. What are the challenges that you face in acquiring digital skills? (Select all that apply) *

Tick all that apply.

- [ ] Financial problem
- [ ] Tight working schedule
- [ ] Library professionals are not interested in learning digital knowledge
- [ ] Higher authority is not interested to send their library professionals to upgrade their digital skills
- [ ] Limited opportunities
- [ ] Lack of sufficient staff in the library
- [ ] Lack of written continuing professional development policies
- [ ] Inadequate continuing professional development activities
- [ ] Lack of computers internet and other digital resources in my library
- [ ] Personal inabilities
- [ ] Poor in services training provision
- [ ] Lack of co-ordination among library staff
- [ ] Lack of initiative from professional associations to conduct specialised training programs
- [ ] Other: _____

30. How can public libraries better support their staff in enhancing their digital skills?

_____
_____
_____
_____
_____

Public Library Staff Views

31. What digital skills do you think are the most important for public librarians to master in order to serve their users effectively?

_____
_____
_____
_____
_____

32. Is there anything else that you want to add about your digital literacy skills or needs?

_____
_____
_____
_____
_____

Appendix B: Information sheet

The University of Sheffield Information School

Participant Information Sheet

1.   Research Project Title:

Digital Competencies for Public Library Staff in England

2.   Invitation paragraph

You are being invited to take part in a research project. Before you decide whether or not to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

3.   What is the project's purpose?

I am surveying librarians in the public library sector in England by using an online questionnaire. The questionnaire will be used to collect data regarding the current digital competencies for librarians and opportunities for professional development from their organisation. In addition, the questionnaire will be used to collect data about staff views on their ability to use digital technology, meet patrons' needs using digital tools, and help patrons to use technology. The research aims to explore the level of digital competencies of public library staff in England to provide high-quality services to users in a rapidly evolving digital environment. The research project will take around three months. It is a requirement for the degree of Master of Arts in Librarianship.

4.   Why have I been chosen?

You have been chosen to participate in the online questionnaire because you meet the criteria set by the researcher conducting the survey. The aim is to recruit a substantial number of librarians working on the public library sector to ensure meaningful and reliable results.

5.   Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part, you will be asked for your consent before completing the questionnaire. You can withdraw from the questionnaire any time before clicking 'submit' on the final page.

Please note that that by choosing to participate in this research, this will not create a legally binding agreement, nor is it intended to create an employment relationship between you and the University of Sheffield.

6.   What will happen to me if I take part? What do I have to do?

If you take part, you have to read and understand the participant information sheet. Then, you have to indicate your willingness to participate using the informed consent form provided in the front page of the online questionnaire. When you provide your consent, you will proceed to the online questionnaire. The questionnaire includes a series of closed-ended and open-ended questions related to the research topic. The closed ended involve choosing predefined response options, while the open-ended questions allow you to provide detailed written responses. The collection of this data is important to achieve the research project's objectives.

7. What are the possible disadvantages and risks of taking part?

Data collection will be done using online questionnaire. There is a possibility of encountering technical issues such as survey interruption or submission errors.

8. What are the possible benefits of taking part?

Whilst there are no immediate benefits for those people participating in the project, it is hoped that this work will contribute to the advancement of knowledge in the public library field.

9. Will my taking part in this project be kept confidential?

All the information that we collect about you during the course of the research will be kept strictly confidential and will only be accessible to members of the research team. You will not be able to be identified in any reports or publications unless you have given your explicit consent for this. If you agree to us sharing the information you provide with other researchers (e.g. by making it available in a data archive) then your personal details will not be included unless you explicitly request this.

10. What is the legal basis for processing my personal data?

According to data protection legislation, we are required to inform you that the legal basis we are applying in order to process your personal data is that 'processing is necessary for the performance of a task carried out in the public interest' (Article 6(1)(e)). Further information can be found in the University's Privacy Notice https://www.sheffield.ac.uk/govern/data-protection/privacy/general.

11. What will happen to the data collected, and the results of the research project?

The primary data will be collected from participants, but no personal data will be collected. The collected data will be stored securely and confidently in secured storage space on the University of Sheffield system, which can be accessed by me, my dissertation supervisor, and authorised staff. The collected data is anonymised. The collected data will be analysed using the Statistical Package for Social Sciences (SPSS) software. The results of the research will be published. You will not be identified in any report or publication. The collected data will be deleted after the dissertation marking is completed and received feedback.

12. Who is organising and funding the research?

The University of Sheffield is organising the research.

13. Who is the Data Controller?

The University of Sheffield will act as the Data Controller for this study. This means that the University is responsible for looking after your information and using it properly.

14. Who has ethically reviewed the project?

This project has been ethically approved via the University of Sheffield's Ethics Review Procedure, as administered by the Information School.

15. What if something goes wrong and I wish to complain about the research?

If you wish to make a complaint, please contact Dr Jayne Finlay (jayne.finlay@sheffield.ac.uk) in the first instance. If you feel your compliant has not been handled in a satisfactory way, you can contact Programme Co-ordinator Dr Leo Appleton (l.appleton@sheffield.ac.uk), who will then escalate the complaint through the appropriate channels. If the complaint relates to how the participants' personal data has been handled, information about how to raise a compliant can be found in the University's Privacy Notice: https://www.sheffield.ac.uk/govern/data-protection/privacy/general.

16.   Contact for further information

For further information please contact:
Dr Jayne Finlay, Dissertation Supervisor (jayne.finlay@sheffield.ac.uk)
Dr Leo Appleton, Programme Co-ordinator (l.appleton@sheffield.ac.uk)

Note: You will be given a copy of the information sheet.

Thank you for considering participating in this study. Your contribution is highly valued and will aid in advancing knowledge in the public library field.