

*Full Length Research*

# American Library Services in the Digital Age: Empirical Literature Survey

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Accepted 25 August 2024

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The digital age has transformed the way libraries operate, and American libraries are no exception. This empirical literatures survey examines the current state of American library services in the digital age. A comprehensive review of existing literature reveals the impact of technological advancements on library services, including the rise of e-books, digital collections, and online resources. The survey also explores the challenges faced by American libraries, such as funding constraints, digital divide, and changing user expectations. The findings of the survey provide valuable insights for librarians, policymakers, and researchers seeking to understand the evolving landscape of American library services in the digital age.

**Keywords:** American libraries, Digital age, Library services, E-books, Digital collections, online resources, funding constraints, Digital divide

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**Cite This Article As:** Olubiyo, P.O (2024). American Library Services in the Digital Age: Empirical Literature Survey. *Inter. J. Acad. Lib. Info. Sci.* 12(5): 137-146

## INTRODUCTION

The internet has already had a major impact on how people find and access information, and now the rising popularity of e-books is helping transform Americans' reading habits. In this changing landscape, public libraries are trying to adjust their services to these new realities while still serving the needs of patrons who rely on more traditional resources. In a new survey of Americans' attitudes and expectations for public libraries, the Pew Research Center's Internet & American Life Project finds that many library patrons are eager to see libraries' digital services expand, yet also feel that print books remain important in the digital age (Zickuhr, Rainie&Purcell,2013).

School Net (2023) libraries, traditionally built within educational institutions, serve as gateways to vast resources for students, teachers, and sometimes parents. For ages, these libraries have stood as the epicenters of information, playing pivotal roles in nurturing reading habits and bolstering academic pursuits. Yet, the accelerating pace of digital transformation challenges these establishments to redefine their essence. The surge in online tools and digital technology prompts educators and librarians to re-envision school libraries. The ease of accessing information online and the allure of digital platforms for research and learning are undeniable. Given this digital inundation, it's imperative for school libraries to evolve, ensuring they remain vital facets of modern education. Adjusting to the continually shifting educational landscape ensures libraries remain essential for 21st-century learners.

As the digital era unfolds, the conventional roles of school libraries are undergoing a transformation. The library, once merely storage for physical books, now stands as a nexus for digital resources, information literacy, and digital proficiency. In this context, school libraries undertake several crucial roles:

- a. Digital Content Curators:** They can amass a broad array of e-books, online journals, educational websites, and multimedia resources. By partnering with teachers, librarians ensure students access top-tier, pertinent content.
- b. Advocates of Information Literacy:** Given the vast troves of online data, students require direction in sourcing, assessing, and judiciously using information. Librarians, by imparting information literacy, mold students into discerning digital content users.
- c. Technology Centers:** Libraries can evolve into tech hubs, facilitating the use of computers, tablets, and other electronic devices. Additionally, they can offer vital tech support and training for students and educators alike.
- d. Collaborative Arenas:** Contemporary libraries are crafted to be adaptable and foster collaboration. They can accommodate group activities, dialogues, and workshops, cultivating a communal spirit and cooperation among students.

The availability of free computers and internet access now rivals book lending and reference expertise as a vital service of libraries. In a national survey of Americans ages 16 and older: • 80% of Americans say borrowing books is a “very important” service libraries provide. • 80% say reference librarians are a “very important” service of libraries. • 77% say free access to computers and the internet is a “very important” service of libraries. Moreover, a notable share of Americans say they would embrace even wider uses of technology at libraries such as: • Online research services allowing patrons to pose questions and get answers from librarians: 37% of Americans ages 16 and older would “very likely” use an “ask a librarian” type of service, and another 36% say they would be “somewhat likely” to do so. • Apps-based access to library materials and programs: 35% of Americans ages 16 and older would “very likely” use that service and another 28% say they would be “somewhat likely” to do so. • Access to technology “petting zoos” to try out new devices: 35% of Americans ages 16 and older would “very likely” use that service and another 34% say they would be “somewhat likely” to do so. • GPS-navigation apps to help patrons locate material inside library buildings: 34% of Americans ages 16 and older would “very likely” use that service and another 28% say they would be “somewhat likely” to do so. • “Redbox”-style lending machines or kiosks located throughout the community where people can check out books, movies or music without having to go to the library itself: 33% of Americans ages 16 and older would “very likely” use that service and another 30% say they would be “somewhat likely” to do so. • “Amazon”-style customized book/audio/video recommendation schemes that are based on patrons’ prior library behaviour: 29% of Americans ages 16 and older would “very likely” use that service and another 35% say they would be “somewhat likely” to do so. When Pew Internet asked the library staff members in an online panel about these services, the three that were most popular were classes on e-borrowing, classes on how to use handheld reading devices, and online “ask a librarian” research services. Many librarians said that their libraries were already offering these resources in various forms, due to demand from their communities. These are some of the key findings from a new national survey of 2,252 Americans ages 16 and older by the Pew Research Center’s Internet & American Life Project and underwritten by a grant from the Bill & Melinda Gates Foundation. The interviews were conducted on October 15-November 10, 2012 and done on cell phone and landlines and in English and Spanish. In the past 12 months, 53% of Americans ages 16 and older visited a library or bookmobile; 25% visited a library website; and 13% used a handheld device such as a smartphone or tablet computer to access library website. All told, 59% of Americans ages 16 and older had at least one of those kinds of interactions with their public library in the past 12 months. Throughout this report we call them “recent library users” and some of our analysis is based on what they do at libraries and library websites. Overall, 52% of recent library users say their use of the library in the past five years has not changed to any great extent. At the same time, 26% of recent library users say their library use has increased and 22% say their use has decreased(Zickuhr, Rainie&Purcell,2013).

### Current Library Services

Hasibuan, Fadhli &Igiriza(2023) expressed that recently, the development of school libraries moves forward with a paradigm shift from conventional to modern libraries that prioritize technology. Now, school libraries offer a wider and more diverse digital collection such as access to online databases, e-books, and multimedia resources. Besides, school libraries also function as learning center that offers various learning programs and academic assistance that can assist students in acquiring new knowledge and skills. Strong collaboration between school principals, teachers, and library staff is needed in identifying student needs and planning appropriate library development strategies to achieve the goal of developing an effective school library. The development of the right school library is expected to have a positive impact on student academic success and improve the quality of education in schools. To adapt to the times and increase the effectiveness of library services, it is important to integrate digital technology into the 21st-century school library. Utilization of digital technology in school libraries can help increase accessibility and speed in finding information, facilitate distance learning, and enrich student learning experiences through the use of multimedia and online resources. Besides, the integration of digital technology can also help optimize collection management and increase efficiency in

library operations. Digital technology integration in school libraries covers the use of library management software, integration of digital databases, creation of websites, and the use of online learning platforms. The integration of digital technology into school libraries is important to provide the best service and relevant information to students and support innovative and modern learning processes.

Compared to whites, African-Americans and Hispanics are more likely to say libraries are important to them and their families, to say libraries are important to their communities, to access the internet at the library (and feel internet access is a very important service libraries provide), to use library internet access to hunt/apply for jobs, and to visit libraries just to sit and read or study. For almost all of the library resources we asked about, African-Americans and Hispanics are significantly more likely than whites to consider them “very important” to the community. That includes: reference librarians, free access to computers/internet, quiet study spaces, research resources, jobs and careers resources, free events, and free meeting spaces. When it comes to future services, African-Americans and Hispanics are more likely than whites to support segregating library spaces for different services, having more comfortable spaces for reading, working and relaxing, offering more learning experiences similar to museum exhibits, helping users digitize material such as family photos or historical documents. Also, minorities are more likely than whites to say they would use these new services specified in the charts below. Statistical analysis that controls for a variety of demographic factors such as income, educational attainment, and age shows that race and ethnicity are significant independent predictors of people’s attitudes about the role of libraries in communities, about current library services, and about their likely use of the future library services we queried (Zickuhr, Rainie&Purcell,2013). Despite the advantages of digital collection at school libraries, the development of digital collections faces some problems such as limited budget and technology infrastructure. Quality digital collections require substantial costs to obtain licenses or purchase access to digital information resources. Besides, school libraries have to ensure sufficient technological infrastructure, such as internet networks and software for smooth and safely accessing to the digital collection. Moreover, school libraries need to ensure the reliability of the digital information sources used to avoid misinformation or misuse of data. In other words, the development of digital collections in school libraries requires careful and continuous management to provide the best service and meet the needs of students and teaching staff (Hasibuan, Fadhli &lgiriza, 2023).

## Library Use

Most Americans have longstanding connections to local libraries, but a fifth have no memory of family members using the library. Some 77% say they remember someone else in their family using public libraries as they were growing up; one in five (20%) say that no one in their family used the library. Women are more likely than men to say they remember a family member using the library when they were growing up, and respondents with higher levels of education and living in households with higher income levels are significantly more likely to say this as well. Hispanics are significantly less likely than whites or blacks to say that a family member used the library, and adults ages 65 and older are somewhat less likely than younger Americans to say this. Additionally, people living in urban or suburban areas are more likely to report that a family member used the library when they were growing up than those living in rural areas (Zickuhr, Rainie&Purcell,2013). Overall, a majority of Americans (76% of all respondents) say that libraries are important to them and their families, and 46% say that libraries are “very important”—up from 38% saying libraries are “very important” in December 2011.1 Women (51%) are more likely than men (40%) to say that libraries are “very important” to them and their families, and blacks (60%) and Hispanics (55%) are more likely to say this than whites (41%). In addition, adults ages 30 and older (50%) are also more likely than adults ages 18-29 (38%) to say that libraries are “very important” to them and their families. Just 18% of 16-17 year-olds say this, though they are among the heaviest users of libraries. Those ages 16-17 are more likely to say that libraries are “somewhat important” (47%) or “not too important” (21%) to them and their families. Additionally, 52% of those in households making less than \$30,000 per year say that libraries are “very important” to them 1 In February 2012, question was a standalone question.

The position of school librarian in these set of competence was not clearly seen but was implicit which created a complicated situation as it was left for each school to decide how to integrate school library in curriculum. The new curricular reform goes step forward and explicitly defines information literacy as one of the generic competences to be developed in students. Generic competence are not divided into three major columns: • ways of thinking (problem solving and decision making, metacognition, critical thinking, creativity and innovation), • ways of working and tools usage (communication, collaboration, information literacy, digital literacy and technology use) • personal and social development (self-management, management of the educational and professional development, connecting with others, active citizenship). This is actually the first time that the term information literacy is clearly stated in the documents. Hopefully these changes in the primary and secondary education will integrate school library in curriculum on a deeper level finally bringing school library as center of educational process. The question that these changes arise now is how will school librarians adapt and prepare themselves for the change. Therefore, the research of current situation in school

libraries serves as a good foundation of understanding current situation and creating future strategies and policies as well as education and training. (Zorica& Dukic, n.d)And their families, with 82% saying that libraries are important overall—making those in this income bracket significantly more likely to say so than those in households making more than \$50,000 per year. Perhaps unsurprisingly, those who have used the library in the past twelve months are more likely to say libraries are important than those who have not. At least half (55%) of those who had used a library in the past year say that the library is “very important” to them and their families, compared with about a third (33%) of those who had not used a library in that time. Similarly, those who are more familiar with the resources and programs at their local public library are more likely to say that libraries are important. Some 86% of those who say they know about “all or most” of the services their library offers say that libraries are important to them and their family overall, including the 60% who say libraries are “very important.” Among those who say they know “not much” or “none at all” of the services their libraries offers, 61% say the library is important to them and their families, and just 32% say it is “very important” In all, the Pew Internet Project survey finds that 39% of Americans ages 16 and older have gone to a library website at one time or another and, of them, 64% visited a library site in the previous 12 months. That translates into 25% of all Americans ages 16+ who visited a library website in the past year. Those who are most likely to have visited library websites are parents of minors, women, those with college educations, those under age 50, and people living in households earning \$75,000 or more. (Zickuhr, Rainie&Purcell,2013).

### Library Importance to Society

Zorica & Dukic, (n.d) expressed that librarians were asked to estimate the importance of various roles of school librarians in primary school environment. The roles of school librarians are described as follows: • Administrative role – plan/develop library policies, budget, programs and communicate with school administration, teachers, parents, etc. • Collection management role – build collections to meet curriculum objectives and students' interests • Information specialist role - assist students and teachers to identify appropriate information resources through comprehensive reference services • Reading promotion role - encourage reading for pleasure among students • Curriculum facilitator role – enrich school curriculum by providing appropriate resources and incorporating information literacy instruction • Teaching role – teach information literacy skills, collaboratively with teachers or independently • Technology expert/leader role - promotes using new technologies for teaching & learning When asked about the importance of public libraries to their community, at least nine in ten respondents (91%) say they considered the library either “very important” (63%) or “somewhat important” (28%) to their community as a whole. While a strong majority of all groups considered libraries important to their communities, some demographic groups stand out in their assessments. Once again, women (69%) are more likely than men (57%) to say that the library was “very important” to their community, and blacks (74%) and Hispanics (67%) are more likely than whites (60%) to say this as well. Adults ages 30 and older are also more likely to consider the library “very important” to their community than younger respondents, and those living in households in the lowest income bracket are more likely to consider libraries “very important” to their community than those in households making at least \$75,000 per year. 63% 46% 28% 30% 4% 11% 3% 12% 0% 20% 40% 60% 80% 100% To your community as a whole To you and your family Very important Somewhat important Not too important Not important at all. Even among those who had not used the library in the past year, at least half (53%) say they consider public libraries “very important” to their community as a whole, with 85% considering libraries important to their community overall. By comparison, 70% of those who had used the library in the past year consider libraries “very important” to their community, and 94% consider them important to their community overall. Meanwhile, about three-quarters (74%) of those who are very familiar with their library’s services consider libraries “very important” to their community, compared with 49% of those who are generally unfamiliar with their library’s services; 94% of those very familiar with their library’s services say libraries are important to their community overall, as do 84% of those who know little to nothing about their library’s offerings (Zickuhr, Rainie&Purcell,2013).

In our focus groups, most participants said that they valued having libraries in their communities and would miss them if they were gone, especially as many were still dealing with the effects of the recession. One participant said, “I think our community would [miss our public library] because our library is extremely well used. The online system came into it its own right about the time the economy changed. Our library is extremely heavily used by people who five or six years ago might have been buying books,” but now can’t afford to. Even the focus group participants who didn’t use their local libraries much said that they would miss them if they were gone. One said that she wanted to live in the sort of community that had a library, even though she personally had not used it yet. Another said that while the loss of her local library would probably not affect her personally, “I look at myself as a member of a community and so it would deeply affect my community”—and therefore have an impact on her as well. Another said: “I prefer to have libraries open to communities where people could not afford what I can afford.” However, some participants, including some who mentioned that their libraries have experienced cutbacks recently, said that library staff were very busy, and weren’t able

to give them the individual attention they remembered and valued from their childhood. One participant said that it seemed like there were so many programs going on, the librarians could seem too busy to just help people find books. At the same time, impressions and library experiences often varied in different areas even within the same city. A few focus group members said that they often feel intimidated when visiting some library branches. These focus group members said they weren't very familiar with the Dewey Decimal system, which made it hard to find what they were looking for even if they were told the call number or pointed in the general direction; some said that library staff members they interacted with would become "frustrated" with them for not understanding such a basic concept: "I live by our library, close by, walking distance. I got intimidated by trying to find the books. It was like they say 'it's number-number-number and letter,' like 100-EB or whatever it is. I'd be like, 'What?' [Laughter] . . . Now I have more fun [reserving books] online and waiting for it to show up and enjoying that. But when I went by myself . . . it was too [complicated]. (Zickuhr, Rainie & Purcell, 2013)

### **Developmental Changes in Library Use in Recent Years**

The rise of the internet – especially broadband connections – and the spread of mobile connectivity could potentially affect people's use of their libraries. The Pew Internet survey asked recent library users about their use of libraries over the last five years. Recent library users are those who visited a public library in person in the past 12 months, or those who have gone on a public library website in the past 12 months, or those who have used a cell phone, e-reader or tablet to visit a public library website or access public library resources in the past 12 months. They amount to 59% of those who are ages 16 and older in the general population. The results showed there is fluidity in library patronage patterns: • 26% of recent library users say their own use of local libraries has increased in the past five years. • 22% say their use has decreased. • 52% say their use has stayed the same during that time period. There are some demographic patterns to patronage changes: When it comes to those who have increased their use of libraries parents of minors are more likely than non-parents to say their library use has increased (30% vs. 23%), those with at least some college experience are more likely than those with high school diplomas to say their use has gone up (29% vs. 19%), and suburban residents (28%) are more likely than rural residents (20%) to report increased library use. Those who say their library use has declined in the past five years are more likely to be non-parents (25%) than parents (17%) and those who are in the 18-29 age bracket (32%), compared to others who are younger or older. Rural residents (61%) and those ages 65 and older (60%) are particularly likely to say their library use has not changed in the past five years. Many of these reasons were echoed by both the members of our in-person focus groups, many of whom mentioned some common patterns they've noticed in their own library use. Many patrons discussed how they had used the library frequently as children, but then visited public libraries less often in middle and high school. Their library use would pick up again for academic reasons in college, but not for pleasure reading. Many people said they "rediscovered" the library when they became parents, and again when they retired. They also cited changing habits as individual circumstances changed, such as the loss of a job or income (job searches, learning new skills). A few focus group also said that discovering a new library service, such as e-book borrowing, would rekindle their interest in the library—and lead to an increase in use of other services. Some simply wished for more programs for single adults. One said that it seemed like all the programs at their library were "either for the senior citizens or for the really young children, like puppet shows [and] magic shows. There's no really in between for those teenagers, young adults, adults." Another thread in our focus group discussions was library hours. Several said that budget cutbacks had led their local libraries to scale back their hours, to the point that it was difficult to find time to stop by— especially when libraries didn't have hours in the evenings or on weekends. "It's not open much at all," one said. "I mean a few hours a day and you can't do a whole lot in that small amount of time." Others said that their library's schedule changed so often that they had trouble remembering when it would be open—and eventually stopped going at all. As we noted earlier in this report, technology owners are somewhat more attached to their libraries than non-users. Internet users, tablet users, and smartphone users are more likely to have ever gone to libraries and more likely to have library cards. However, they are no more likely than non-owners to have visited a library or bookmobile in the past 12 months. Asked to assess their library use over the past five years, recent library users who are home internet users, tablet users and smartphone owners are somewhat more likely than non-users to say their use has declined. And they are especially likely to say that the reason for their diminished use stems from the fact they can do research online (Zickuhr, Rainie & Purcell, 2013).

### **Library Use and Technology**

Some 73% of Americans ages 16 and over say there are places in their community where they can access the internet or use a computer for free.<sup>2</sup> And 35% say they have used those free access points. Younger Americans, particularly 16-

17 year-olds, are significantly more likely to have used free internet and computers in their communities than older adults. Americans living in households in the highest income bracket are more likely than those living in the lowest income bracket to have used free internet and computers. Americans with higher levels of education, especially college graduates, are also more likely than those with lower levels of education to have done this. Use of computers and the internet at libraries We asked those who had visited libraries in the past 12 months if they used the computers and the internet at the library. Our question was designed to include people who used the wired computers at the library and people who had used the library WiFi connection, too. Some 26% of those ages 16 and older had connected to the internet at the library. • There are some notable demographic differences in the answers to this question. 66% of those who used the internet at a library in the past 12 months did research for school or work. Hispanics, rural residents, and people ages 16-49 are especially likely to say they did this activity. • 63% say they browsed the internet for fun or to pass the time. African-Americans and Hispanics are more likely than whites to report this internet use, as are those ages 18-29. • 54% say they used email. Women are more likely than men to say this, as are those ages 18-49. • 47% say they got health information. • 41% say they visited government websites or got information about government services. People living in households earning less than \$30,000 are especially likely to report this use. • 36% say they looked for jobs or applied for jobs online. African-Americans are the most likely to report this activity. In addition, those ages 18-49, those who live in cities, high school graduates, and those in households earning less than \$50,000 are also more likely than others to use library computers this way. • 35% say they visited social networking sites. Those ages 16-29 are especially likely to report this use. • 26% say they downloaded or watched online video. Suburban residents are more likely than others to report this. • 16% say they bought a product online. • 16% say they paid bills or did online banking. • 16% say they took an online class or completed an online certification program. Some 36% of those who had ever visited a library say the library staff had helped them use a computer or the internet at a library. African-Americans and Hispanics are more likely than whites to access the internet at their local library, as are parents of minor children, those under age 50, those living in households earning less than \$30,000, and those with at least some college experience. We did not ask a question about whether library internet users depend on that connection as their primary internet connection. But we asked respondents to this survey how important they think it is to have free access to computers and the internet at the library in their community. Some 77% of all those ages 16 and older say it was “very important” for libraries to offer free access to computers and the internet to the community and another 18% say it was “somewhat important.” Just 2% say it was not too important and another 2% say it was not important at all. Again, there are some noteworthy demographic differences in the answers: African-Americans and Hispanics are more likely than whites to feel free access was very important. Women and those with some college experience are also especially likely to feel this way. This topic is discussed further in Part 4 of this report (Zickuhr, Rainie & Purcell, 2013).

### Client Expectation from Library Services

In addition to asking people how they use their local public libraries, we also asked them about how much they felt they know about the different services and programs their library offers. We also examined how important Americans feel various library services are to their communities, and explored what sort of activities and resources people might be interested in using at libraries in the future. In general, Americans feel somewhat well-informed about the various services offered by their local libraries. While about one in five (22%) feel they are aware of “all or most” of the services and programs their public library offers, a plurality (46%) feel they just know of “some” of what their library offers. Another 20% say they know “not much” about services offered by their library, and 11% say they know “nothing at all” about what is available at their library. Whites (23%) are more likely than Hispanics (16%) to say they know “all or some” of what their library offers, while Hispanics are more likely to say that they know “nothing at all”—21% say this, more than twice the rate among whites (9%) or blacks (11%). Women are also more likely to consider themselves well-informed of library services than men, and those with higher levels of education are more likely to say they’re aware of at least some services than those with less education. Respondents under the age of 30 are also less likely to say they know much about library services than older adults, particularly those ages 30-64. One aspect mentioned very often, both in focus groups and in qualitative work from previous research, is that people wish they were more aware of the full range of services offered by their libraries. One focus group member loved her local library and rated it highly in all areas—except communication; “there’s so much good stuff going on but no one tells anybody.” Another said, “they do so many fabulous things, [but] they have horrible marketing.” However, focus group members say that having resources and events listed on their library’s website wasn’t enough—as several participants pointed out, they probably weren’t going to go to the website to look for events (or even to sign up for email newsletters) unless they already knew that the library had those events. Instead, they said they usually stumbled across listings either at their library in-person, when trying to do something else online, or by seeing signage outside the library as they were driving past.

One parent loved their library and described it as “unbelievable,” but said that she only heard about events when they

were already in the library with their children, on their way to participate in another activity or event. This parent said that they often weren't even aware of events until she heard the announcement that the event was about to start, when it was too late for her family to change plans. Many of the librarians in our in-person focus groups agreed that it was difficult to reach patrons and tell them about all the services the library offered. Several said that almost every day, they will be speaking with a patron who had come in for a specific service, and would mention other services or resources and hear the patron reply, "I didn't know that was available. (Zickuhr, Rainie&Purcell,2013)" Comparing school librarians' engagement in activities under four roles discussed above it is worth mentioning that perceived importance of the roles is not always associated with the frequency of tasks performed in related roles. Although the roles of administrator, information specialist and collection manager are estimated as less important than the reading motivation role school librarians are more active in performing various tasks related to the three less important roles. Zorica& Dukic, (n.d)

Overall, 80% of Americans say that it is "very important" to the community for libraries to have librarians available to help people find information they need. Some 16% consider having librarians at libraries "somewhat important," while 2% say this is "not too important" and 1% say it is "not at all important." Blacks (89%) are significantly more likely than whites (78%) to consider librarians "very important," and women (84%) are more likely to say this than men (77%). Those living in households making less than \$30,000 per year are also more likely to consider librarians very important compared to those living in households earning more than \$75,000.

Our focus groups considered librarians to be very important to libraries in general, and many had very positive memories of interactions with librarians from their childhoods. Even when they suggested automating certain services for the sake of convenience, our focus groups overwhelmingly saw a future with librarians as an integral part of libraries. Several library staff members who participated in our online panel said that they felt patrons were not always aware of the research assistance librarians can offer. One wrote, "Often a patron will troll through the internet for hours trying to find a form or information source that I could provide them in a matter of moments." Another librarian said that most people, including students, didn't know about the research resources offered by the library other than books: "Most students have no idea what a database is and therefore get their information from Google, while the tremendous resources available online from our library go unknown and unused." (Zickuhr, Rainie&Purcell,2013)

Overall, 80% of Americans say that it is "very important" for libraries to provide books to the community for borrowing. Another 15% consider book borrowing "somewhat important," while 2% say this is "not too important" and 2% say it is "not at all important." Women (84%) are significantly more likely than men (76%) to consider book borrowing to be "very important" to the community. Adults ages 30-64 are more likely than other age groups to say this, as are those who had at least some college experience compared with those who had not attended college. Tablet users (84%) and e-reader users (83%) are significantly more likely than Americans who do not own these devices to consider book borrowing at libraries "very important." Most focus group members felt that books are essential to libraries, although a few vocal opponents disagreed. As noted in Part 3 of this report, three-quarters (77%) of Americans think it is "very important" for public libraries to provide free access to computers and the internet to the community. Another 18% consider free computer and internet access "somewhat important," while 2% say this is "not too important" and 2% say it is "not at all important." The vast majority of blacks (92%) and Hispanics (86%) consider the free access to computer and the internet that libraries provide "very important" to the community, making them significantly more than whites (72%) to say this. Additionally, women (81%) are more likely than men (73%) to consider this access "very important," as are adults ages 30-64 (81%) compared with other age groups. Smartphone users (82%) are significantly more likely than Americans who do not own these devices (72%) to consider free access to computers and the internet "very important." The librarian in our online panel overwhelmingly said that providing access to computers and the internet was an important service for libraries. "Our most popular area is the public access computers," one library staff member wrote. "They are constantly full." A rural librarian told us: "As a public library in a poverty stricken rural community we provide the only link to the outside world through our computers. Our citizens do not have internet service or computers at home. Many do not have transportation and there is no public transportation which leaves many adults and children isolated. We, at the library, are working to develop a way to provide internet access and computers to everyone in our county." Many librarians emphasized that they see the role of a library as a place to enable access to information, regardless of the format. Several said that this focus on access is even more important in the digital age than before. "I believe public libraries should move away from being 'houses of knowledge' and move more towards being 'houses of access.'" One wrote. "This is what the public is asking for and we are here to serve them." Another librarian said: "I believe libraries need to provide computers and Internet access for patrons who cannot afford these items or cannot purchase high speed Internet access in their home area. Many job applications, etc. are online now which widens the digital divide unless libraries provide this service."

Some 76% of Americans think it is "very important" to the community for public libraries to provide quiet study spaces for adults and children. Another 19% consider quiet study spaces "somewhat important," while 2% say they are "not too important" and 2% say they are "not at all important." Almost nine in ten blacks (89%) and Hispanics (86%) consider libraries' quiet study spaces to be "very important" to the community, making them significantly more than whites (71%)

to say this. Additionally, women (81%) are more likely than men (70%) to consider this resource “very important,” as are Americans who have not graduated from college (78%) compared with college graduates (69%). Adults ages 50-64 are also somewhat more likely than other age groups to consider quiet study spaces “very important,” although Americans under the age of 50 are most likely to consider these areas important overall. Those living in urban areas (81%) are also significantly more likely than those living in suburban (73%) or rural (73%) communities to say quiet study spaces are “very important.”

Some members of the focus groups were adamant about needing areas they can use that are absolutely quiet. Others also suggested separate small conference/study rooms where you can close the door to work or have meetings. One said, “I wish there a way in which you could lock off spaces because I work remotely from home and I'd love to be able to go someplace else to work to change it up.” Programs and classes for children and teens Almost three-quarters (74%) of Americans think it is “very important” for public libraries to provide programs and classes for children and teens. Another 21% consider these programs “somewhat important,” while 2% say they are “not too important” and 2% say they are “not at all important.” Some 92% of Hispanics and 86% of blacks consider these classes to be “very important” to the community, making them significantly more than whites (68%) to say this. Additionally, women (79%) are more likely than men (68%) to consider this resource “very important,” as are Americans in households making less than \$75,000 per year (79%) compared with those in households earning more (65%). p e w i n t e r n e t o r g 45 Parents in our focus groups almost uniformly appreciated children’s programming at their local libraries. Some parents said that they would appreciate extended hours at libraries so their children could spend time there in a monitored environment; others wished there were more activities on weekends, instead of during the work day. Many librarians in the online canvassing wrote about their experiences creating “hangout” spaces and activities for teens, citing importance of keeping teens engaged with the library as they grow older. “Interacting with children and young adults at their schools is an important aspect of encouraging these groups to use the library at a young age,” one wrote. “These groups may be more likely to use the library as adults if they are comfortable there as children.”

Finally, keeping these spaces apart from the main reading room areas of the library seemed to be an important point for many of our focus group members, as many of them complained about increased noise levels during our sessions. Research resources such as free databases Some 73% of Americans say it is “very important” for public libraries to provide research resources such as free databases to the community. One in five (20%) consider these resources “somewhat important,” while 2% say they are “not too important” and 2% say they are “not at all important.” Blacks (84%) and Hispanics (85%) are significantly more likely than whites (69%) to say that these research resources are “very important” to the community, and women (78%) are more likely than men (68%) to say this. Those under the age of 65 are more likely than older adults to think these resources are important to the community. Americans living in urban areas (79%) are also significantly more likely than those living in suburban areas (69%) to say research resources are “very important.” Computer users and smartphone users are just as likely as people who do not own these devices to think it is “very important” for libraries to provide research resources; however, tablet users (67%) are significantly less likely than non-users (75%) to consider these research resources “very important.” “My experience is that we are busy, people want us more hours, but they are largely unaware of our online resources,” one library staff member in our online panel wrote. “When you share the information with them (eBooks, databases, online classes) they are excited, but unless we tell them in person they (mostly) do not know about them.” The level of patron interest in databases seemed to vary based on the interests and needs of its patrons. Another library staff member wrote that while e-books and other digital resources were very popular with patrons, “on-line databases such as Mango and ancestry.com have not elicited much of a response at all.” Job, employment and career resources Some 67% of Americans think it is “very important” to the community for public libraries to provide job, employment and career resources. Another 22% consider these resources “somewhat important,” while 5% say they are “not too important” and 2% say they are “not at all important.” About eight in ten blacks (83%) and Hispanics (81%) consider libraries’ career resources to be “very important” to the community, compared with about six in ten whites (61%), and women (73%) are more likely than men (60%) to say this. Those who had not completed college and those living in lower- income households are also generally more likely to say these resources are “very important.”

Additionally, Americans under the age of 65 are most likely to consider these resources important overall compared with those ages 65 and older. Those living in urban areas (71%) are also significantly more likely than those living in suburban areas (64%) to say employment-related resources are “very important.” Finally, people who have computers, tablets, or smartphones are less likely than those who do not own these devices to consider job resources at libraries to be “very important.” In our focus groups, awareness and use of career-related resources seems to vary widely by library, as well as by city. A few focus group members said that they relied heavily on these services in their job searches; other focus group members weren’t aware of these services at all. Library staff members in our online panel often emphasized the importance of employment-related resources, especially for patrons who are less comfortable with technology or lack resources at home. “There are large parts of this community that have less than 20% of the population with computers at home. We have job seekers that leave the library phone as their contact,” one librarian wrote. Another



said: "Many of our town residents/patrons have no internet access and, some who do, are still using a dial-up network. Offering internet access for e-mail, job searching, and personal research are a vital component to the services we provide." Many librarians said they felt that offering computers and other resources for job-seekers was increasingly important as technology became more vital to the job search process. "Libraries need to be able to meet the needs of the patron," one librarian wrote, and "[in] this day and age the patron needs have become more focused on technology. This means that they may not have the ability to acquire the knowledge needed to apply for a job, write a résumé, use a computer, use applications on a computer or just use a device that they might need to help them in different areas of their life."

Almost three-quarters (73%) of respondents say they would be interested in an "Ask a Librarian" online research service, where they could pose questions and get responses from librarians; some 37% say they would be "very likely" to use this type of resource. Some 87% of blacks and 88% of Hispanics expressed an interest in this resource, compared with 67% of whites, and over half of blacks and Hispanics say they would be "very likely" to use an online research service. At least three-quarters of Americans under age 65 expressed an interest in this resource, compared with 55% of those ages 65 and older. Additionally, smartphone owners are more likely than non-owners to express an interest in this service overall; some 79% of smartphone users say they would be "likely" or "very likely" to use this service, compared with 68% of non-owners. It seemed as though the libraries in our online panel either already offered this service (about half of the librarians said this), or were unlikely to do so in the future. The response from those who have already implemented this type of service was generally positive: "People love our Ask a Librarian service and our one on one appointments. We only have a few minutes to spend with people in the call center or on the service floor, so when they need help with e-books or research, we set them up with a librarian with good skills in that area for up to an hour. They really get their questions answered that way. " However, others had more mixed experiences. "We used to participate in an 24/7 [online research] program," one librarian wrote. "At first it was at no charge to us, then we were charged a relatively high fee, and then we dropped out. Very few of our patrons were taking advantage of it—not a good use of our scarce funds." Another librarian also had less-than-positive experiences with the service: "It seemed to be used more by pranksters, than patrons, mundane questions such as library hours, late fees, information readily available on our webpage. It's been discontinued." For other libraries, it was simply a matter of staff time: "The online research with live librarians seems unlikely for our system because I don't think we have the staff and availability to guarantee that a librarian would always be available at a station to immediately respond to online live queries."

Overall, 64% of respondents say they would be interested in personalized online accounts that provide customized recommendations for books and services based on their past library activity, similar to the recommendations offered by commercial sites like Amazon; some 29% say they would be "very likely" to use a service with customized book recommendations. In general, blacks (73%) and Hispanics (77%) are both significantly more likely than whites (58%) to express interest in this service, and Americans under age 65 are also more likely than those 65 and over to be interested. Women (68%) are significantly more likely than men (59%) to express interest in this service. Urban residents (30%) and suburban residents (31%) are also significantly more likely than rural residents (20%) to say they would be "very likely" to use this resource. Americans who use technological devices (including cell phones or computers) are more likely than those who do not own these devices to express a strong interest in this resource, including 37% of ereader owners, 35% of tablet owners, and 34% of smartphone owners.

## CONCLUSION

As was stated in the preceding sub-topic, the world is already in an era of technological revolution where Information and Communications Technology (ICT) forms an integral part of societal changes. Enhanced access to a variety of sources through ICT therefore calls for a revision of the educational programmes of school librarian so as to equip him adequately for the task of planning and teaching the new information handling skills with teachers for students. (Simpson 2003) in Nwakwuo(N.d)

## RECOMMENDATIONS

Many focus group members were very enthusiastic about the idea of personalized book recommendations, and idea that had also been frequently mentioned by e-book borrowers from a previous online panel. However, many of the librarians who answered our online questionnaire expressed hesitance due to privacy issues. "Personalized accounts sound great but the idea of tracking patrons use and having that data on file seems like an invasion of privacy in many ways," one library staff member wrote. Another agreed: "We are never going to offer customized recommendations based on past library activity because we don't keep that information. It's a major breach of privacy." One way that some

libraries have tried in order offer this service is with a voluntary, opt-in system. Some librarians reported success with these services, while others were considering trying them: "Customized recommendations also mean retaining records of what patrons have checked out in the past, which we do not currently do because of privacy issues. We are heading towards a system where patrons can 'opt in' to have their borrowing record available, but the default will still be to not retain." Some libraries also use more general lists of recommendations that they send out to patrons via email or post on their websites. One wrote, "We have 'personalized accounts' and would like to expand to specific reading suggestions. For now we use the web page to try to get the word out on good new reads." Yet for many of the librarians in our online panel, the best solution for now is to use external sites and third-party book communities that are not connected to patrons' library records. Library staff members mentioned directing patrons to sites such as Goodreads, Book Psychic, or NovelList Plus. "Our patrons can use Destiny Quest to make recommendations to each other and receive recommendations based on their check-out history," one librarian wrote, but noted that "very few patrons make use of this service. Most don't know it is available."

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