ARTICLE

Technology Integration in Storytime Programs

Provider Perspectives

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ABSTRACT

Technology use is widespread in the lives of children and families, and parents and caregivers express concern about children's safety and development in relation to technology use. Children's librarians have a unique role to play in guiding the technology use of children and families, yet little is known about how public library programs facilitate children's digital literacy. This study sought to uncover librarians' purposes for using technology in programs with young children as well as the supporting factors and barriers they encountered in attempting to do so. Findings reveal 10 purposes for integrating technology into public library storytime programs and 15 factors across four dimensions that facilitate and/or inhibit its inclusion. If librarians are to embrace the media mentor role with confidence and the necessary knowledge and skills required of the task, much greater attention should be devoted to the responsibility and more support in the way of professional development and resources is necessary.

INTRODUCTION

Technology use is widespread in the lives of children and families. From a very early age, children in highly developed countries across the world regularly interact with technology and data from device trackers substantiate parental reports.[1] Nearly all families have access to one or more mobile devices, and nearly three-fourths of children in the United States begin some form of digital engagement, primarily television viewing, before age three.[2] Prior to formal schooling, children (ages two to four) in highly developed countries tend to use a device with a screen for about two and a half hours per day on average.[3]

Differences in screen use by income level and race are significant, with children from lower-income families and children of color spending more time on electronic devices than children from higher-income families and children who are White. Though most parents do allow their children to use technology, many voice some concerns about their children's well-being, particularly regarding privacy as well as the content of the media.[4] Yet, young children's digital activity can be beneficial, particularly when the technology is designed to foster active, meaningful engagement and when it facilitates social interaction.[5]

In light of children's usage and parents' concerns, librarians in public libraries have a unique role to play in this information realm. Not only can librarians provide access to technology and recommended resources but they can also provide guidance in how to use technology to contribute to children's learning, especially in the areas of reading, information literacy, and academic concepts.[6] Yet, little is known about whether librarians actually facilitate children's digital literacy through integration of technology into programs, and this dearth of empirical

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https://doi.org/10.6017/ital.v42i2.15701

evidence is highlighted in the Association of Library Services to Children (ALSC) research agenda.[7] Storytime, as a program attended by both children and caregivers, can be used as a time for children's librarians to integrate technology for the purposes of modeling and explaining how various electronic tools might be beneficial for young children.[8] Due to this potential, it is important to understand how and why children's librarians are—or are not—integrating technology into storytime programs.

Previous Studies of Technology Use in Children's Programs and Storytimes

Internationally, there have been few investigations of technology integration within library programs for young children. Within the United States, two survey studies, both commissioned by ALSC, sought to capture the use of technology in youth programming.[9] The initial survey launched in 2014 and the follow-up survey in 2018. Respondents to these surveys reported that the types of devices used most often in libraries were proprietary institutional devices, digital tablets, tangible tech such as Squishy Circuits that allow children to build electrical circuits with play dough, and programmable tech such as Cubetto, a wooden robot toy.[10] Additionally, more than half of respondents working in medium and large libraries and more than 45% of those working in small libraries indicated using digital devices during storytimes.[11] Conversely, a comprehensive study of programming for young children in public libraries, which included observations, concluded that, "while many libraries offer families a place to use computers and other digital resources together, few libraries actively promote the use of technology during their programming."[12] Notably, neither the 2014 nor 2018 ALSC survey included questions about the types of technology used in storytimes, nor were respondents asked to explain their thoughts on why or how technology was or was not included in storytime.[13]

A study conducted in Aotearoa New Zealand collected data about technology use in storytime in three phases: a survey of 25 children's librarians, interviews with librarians in nine libraries, and a survey of 28 caregivers who attend a library storytime with a young child.[14] Slightly more than a quarter of the librarians responding to the survey reported incorporating digital technology such as tablets or e-books into storytime programs. The most common rationale for technology use in storytime was to educate caregivers. Other reasons included for the novelty of it and to promote accessibility and the aims of library services. Interviewees explained that they used technology in storytime to show caregivers the availability of high-quality digital media such as e-books and educational apps, with one likening the use and recommendation of digital media to librarians' traditional role as recommenders of storybooks (i.e., readers' advisory services). Conversely, one interviewee expressed reservations about using technology for fear that children would be distracted from the content of the story. The majority of caregiver respondents who had attended a storytime with digital technology reported enjoying the experience. However, those who had never attended a storytime with technology were apprehensive about doing so.

Technology Best Practices: Joint Media Engagement and Media Mentorship

Recent scholarship encourages children's librarians to use their expertise and experience to evaluate and recommend technology and new media resources as well as to model for adults how to interact with children as they use technology.[15] For example, librarians can promote joint media engagement during storytimes both by modeling the practice and by directly explaining it to the adults in attendance.

Using technology during storytime can be seen as modeling modern literacy practices, just as reading print books has modeled literacy practices in traditional storytimes since the 1940s.[16]

ALSC instructs youth services librarians to act as media mentors, a role that means they will assist caregivers in choosing and using technology by researching new technology and by modeling technology use, such as joint media engagement, for caregivers in programs such as storytimes.[17] Media mentorship is seen as an extension of how youth services librarians have traditionally been called upon to meet the needs of caregivers and children with their knowledge of child development and ability to facilitate caregivers' information seeking.[18] While ALSC encourages media mentorship, the extent to which children's librarians have embraced this role is unclear in professional research. Findings from prior surveys and interviews with storytime providers suggest that librarians are regularly integrating technology into programs while observations of library programs suggest otherwise.[19] Further, Goulding and colleagues found that while many librarians were comfortable recommending technology such as apps, it was unclear whether or not they were modeling its use during storytimes.[20]

Study Objectives

The overarching research question of this study is "How do storytime providers view the integration of technology into storytime programs?" The following three research questions guide this study.

1. What are the purposes for using technology in storytimes?
2. What are factors associated with adopting technology in storytimes?
3. What are barriers to integrating technology in storytimes?

METHOD

Participants

As part of a larger Institute of Museum and Library Services (IMLS)-funded, multistate study that was approved by the University of Kentucky institutional review board (IRB number 42829), researchers conducted semi-structured interviews with 34 library staff who facilitate storytime programs at public libraries serving urban, suburban, and rural communities across Kentucky, Ohio, and Indiana.[21] Interviewees were not asked to identify their race or ethnicity. Thirty-two identified as female and two as male. All but one of the participants (97%) had earned a college degree, but only 13 (38.2%) held a master's degree from a library and information science (LIS) program, while another two were enrolled in an LIS master's degree program when the interviews occurred. The majority of participants (57.1%) had five years or more of experience in children's library services. The participants will be referred to as "storytime providers."

Procedure

The interviews were conducted by one member of the research team. Other members of the team created written transcripts from recordings of the interviews. For the study reported in this paper, researchers focused on participants' answers to the interview question "What place, if any, does technology or digital media have in a quality storytime program?" An open coding method was used to organize participants' statements within three categories: purposes underlying technology use, factors associated with technology adoption, and barriers to technology integration. Three researchers conducted open coding independently and came up with the initial set of coding results. Then, the researchers discussed the coding results multiple times to assess the relevance of the coded constructs, refine operational definitions, and select one representative quote for each code. Interviewees were assigned a number between 1 and 34 to eliminate identifying information.

RESULTS

What Are the Purposes for Using Technology in Storytimes?

To find answers to this research question, the researchers coded statements related to how or why interviewees used or wanted to use technology in storytime programs. We identified 10 specific purposes, formed operational definitions for each, and chose one representative quote (table 1). Although most purposes had statements from more than one interviewee associated with them, we collaborated to choose one example due to space constraints. Researchers determined that the purposes for technology use could be divided into two categories: experiential and learning. Experiential purposes are those for which technology is used to create a positive, engaging experience for child and/or adult participants. Learning purposes are those for which technology use is intended to help child and/or adult participants learn.

What Are Factors Associated with Adopting Technology in Storytimes?

To answer the second research question, researchers looked for statements explaining the reasons or causes for storytime providers using or wanting to use technology in their storytime programs. These would be factors that facilitate technology adoption. Researchers coded statements independently and then discussed results multiple times to verify relevance and consolidate categories into 15 factors in four dimensions: storytime provider, participant, library system, and content. Though many factors had more than one corresponding statement from participants, we chose one representative quote for each. Results are presented in table 2.

What Are Barriers to Integrating Technology in Storytimes?

To answer this question, researchers independently reviewed responses, looking for statements related to why storytime providers did not or did not wish to use technology during storytime. After individual coding, we collaborated to verify relevance, refine definitions of the 15 identified barriers, and choose representative quotes. The results are presented in table 3. Researchers found that three of the dimensions created for factors that lead to technology adoption could also be applied to barriers to technology integration: storytime provider, participant, and library system.

Table 1. Purposes for using technology in storytimes

Category	Purpose	Operational definition	Representative quote
Experiential	Accommodating large groups	Technology is used to enable a large group to view books/materials	2: "I had this huge group of kids. And I took them to our Red Room and did a story on our big screen. You know, through TumbleBooks."
	Children's enjoyment	Provider incorporates media or technology because children enjoy it	14: "And then as far as, um, sometimes, um, we'll have, like, at the end of a storytime, we may have a little short, um, like nonfiction or sign language or if we were doing something on the alphabet, maybe I would throw in a little DVD and give them popcorn for the end of storytime and things like that and I think that they really enjoy that. It is important to integrate that in."
	Facilitating adult participation	Provider uses technology to display the words to songs to facilitate adult participation	12: "The closest thing I would say, I use a PowerPoint that has the words on it for the parents to be able to follow along, um, or for the kids if they can pick out some of the letters or start to read, even some of the older ones."
	Facilitating movements	Technology is used to facilitate movements or dancing	19: "In addition to our singing, just to give, you know, to change it up a little bit. So, they can hear the music. We clap rhythms. So, we use that a lot."
	Playing songs/music	Technology is used to play songs or music	13: "We have a sound system that I love, with surround sound. We always do our last song with, you know, that, and I've been fortunate that it's worked all the time."

Category	Purpose	Operational definition	Representative quote
	Sound effects	Technology is used to create a sound or voice	17: "One of the better things that I've done, that I like to do, is, I like to use animal sounds. I'll research or pull up a list of sounds on YouTube or whatever and have the kids listen to them. I think that's always been a fun way to work in a little bit of technology without taking out all of the flow."
	Visual aids	Technology is used to support children's visual experience	24: "And, like, it gives the kids a visual. And I feel like sometimes, if we could give them a better visual, they might be more engaged."
Learning	Support for adult-child interaction	Technology is used to support adult-child interaction	1: "If you're actually sitting down with your child, looking at it together, it's a lot more effective and the child is getting a lot more out of it versus just sitting them in front of it and expecting to teach something to the child."
	Teaching caregivers	Technology is integrated to model for caregivers	11: "I think it's important to share with parents really good e-resources, such as, like, apps. And books and stuff. So, that, I think it's very important…. I have, like, when I have like a screen, a projector screen, maybe when the book I picked for the storytime was an e-book that they could get through the library, and kind of, you know, advertise that resource, and then we would, we would read the e-book, you know, from the projector. So I've done, like, e-books and stuff."
	Teaching concepts	Technology is used to present letters, words, numbers, shapes, sign language, colors, or coding skills, to children	22: "…. all these different color songs, um, and they're actually just on YouTube…. So that is one way that we've been incorporating technology, um, is with those color songs because it spells it out for them. They can see the word, it's a familiar tune, and it helps them, you know, at least be able to sing, sing the song."

Table 2. Factors associated with adopting technology in storytimes

Dimension	Factor	Operational definition	Representative quotes
Storytime provider	Awareness	Provider is aware of the tool/technology available for storytime	1: "I'm aware of all kinds of apps that are out there and of course the e-books."
	Familiarity	Provider feels comfortable with the technology and with integrating the technology into programs	1: "I feel like it's going to be effective if it's what you're comfortable with and you're excited about. Because that will come through when you actually provide the storytime."
	Choice of provider	Ultimately it is up to the provider to choose to integrate technology or not	1: "I think it all depends on the provider."
	Provider's philosophy and approach	How the provider views storytime and its purpose influences technology integration	1: "Everyone has their own, unique storytime philosophy and the way that they approach planning storytimes…. So, really, a lot of it is just ... theory of how you want to approach it since there's so many options out there."
	Reaction/success with initial attempt	If the provider tried technology integration, the success or failure of that initial attempt influences subsequent attempts	2: "It went over really well."

Dimension	Factor	Operational definition	Representative quotes
	Research base	Provider is aware of research to support integration of technology	1: "... it's kind of what the research is saying with parents and digital media at home. It all depends on how you are using it. If you're actually sitting down with your child, looking at it together, it's a lot more effective and the child is getting a lot more out of it versus just sitting them in front of it and expecting to teach something to the child."
Participant	Number of participants	The number of participants facilitates technology integration	2: "I think this summer was the first time I ever did that [used technology], and it was because I had this huge group of kids."
	Perception of caregivers' reactions	Provider's perception of how the caregivers would react to technology use	1: "I think they would probably be open to it…. I don't know if maybe the perception some parents don't want any technology, that would keep some people from appreciating it. But I think in general, it would be well-received if we tried it."
	Responsive to children's interests	Provider uses digital resources because the children show interest or engagement	10: "Kids are automatically interested in that stuff. They don't need to be enticed. You know, you just get out an iPhone or an iPad and they're, like, *gasp*."
Library system	Access to equipment and resources	Provider has access to technology and tools	1: "... we have technology, I think, in our system to implement it. You know, e-readers and iPads and things that we can use in storytimes. And large screen TVs."

Dimension	Factor	Operational definition	Representative quotes
	Colleague support	Provider is part of a branch or system that shares information and resources for technology integration	17: "So, you know, we have, and we've gotten pretty [good] at sharing with other storytime providers in our system if we have any websites or anything that we've been using or music that works really well for 'Movers and Shakers' or anything like that."
	Expectation to integrate technology in programs	Provider feels pressure to integrate technology and is defensive about the choice not to do so	1: "I kind of apologize for it…. So, we have the technology available, and they encourage us to use it...."
	Training	Provider has used or wants to use technology during storytime because of a training	17: "We did a digital mentoring training about how to appropriately model, like, tech skills and screen time with families. So we've been encouraged to add in a little bit more technology into our storytimes if we can do those, you know, in an appropriate way."
Content	Interactivity	Provider can use technology to facilitate interactivity	24: "... I would love to use some, like, smart TVs, smart boards, those kind of things. Just for some interactive songs and you know, activities... When I go into these kindergartens and first grade and second grade rooms, like, these kids are using the smart boards for interactive activities for ABCs and colors and shapes and numbers. And it may be through an activity or a song that's being used with that smart board. And I say, 'Oh, I love that! I wish I could do that!'"
	Theme	Provider uses technology that clearly connects to the theme of the storytime	17: "Actually in my KinderBridge storytime now, it's shapes month. We have the OSMOTangrams that I bring out. So that's one of the ones all four weeks I'm going to use the apps and bring out both of our iPads so that kids can practice those spatial shapes."

Table 3. Barriers to integrating technology in storytime

Dimension	Barrier	Operational definition	Representative quote
Storytime provider	Fear of difficulties/ problems	Provider doesn't plan or hesitates to plan technology use because there may be problems with using it	13: "But technology can be a problem. When you're planning or something and it's not working."
	Previous/ own child's experiences with tech	Provider has negative experience using technology with children	5: "I have a four-year old. And it's interesting to see how he responds to technology and what he responds to. And what helps him to learn the most. And it's just, like, night and day what he learns from. You know, hearing repeated songs and rhymes and just reading tons of books versus what he learns…. I mean, I think that probably the most he ever learned from an iPad was getting to watch Sesame Street. Just sort of the same, sort of like watching a storytime, I think. But yeah, I think just now from experience seeing like, 'Oh! That really doesn't. It's not a helpful tool, I don't think, for that age.' Just from my experience."
	Undecided about the value of tech	Provider is unsure if tech integration is appropriate	5: "I have been all over the board in terms of that subject … like I said, it's really important for me to pack in as much of what I think they need in a storytime. And I don't know, again, I'm not sure that I'm doing exactly what is correct and maybe I should be exposing them more. But I feel like, especially for three- to five-year olds, it's one of those things....
	Screen time/ overuse concerns	Provider is concerned about children's screen time	2: "Because I think there's plenty of opportunity to be had in other places."

Dimension	Barrier	Operational definition	Representative quote
	Storytime activities as purposeful alternative to technology	Provider deliberately chooses not to use technology in storytime because they see storytime activities as equally or more beneficial	16: "And one thing that I've gotten feedback on is that kids are exposed to the technology in pretty much every facet of their life, so if we can make this a space where they can learn and experience things in a way that doesn't have technology and they can see that it's still really fun and exciting and we can learn a lot, then that has its own place, too."
	Unwilling to adopt a new technology	Provider keeps using the prior tool and does not try a new alternative technology	18: "I'm kind of old school because we've been using our CD player."
Participant	Children devalue other components of storytime when tech is integrated	Provider perceives that the children prefer tech over other components of storytime	5: "I used to sometimes show a short video, and then I kind of found that that's what they looked forward to most. I wanted to sort of change that perception of what the library was for some kids."
	Difficult to use tech with young children	Provider experiences difficulty using technology with young children	5: "I have found, for preschoolers, that it is really hard to incorporate anything digital."
	Lack of access to the internet	Poor broadband in rural area; why expose children to something they can't use at home	5: "I feel like, especially here in this rural area, … [w]e have a really poor broadband network here, so not a lot of people have access to the internet. And so sometimes I feel like, also, showing them something that they can't really utilize at home is not really helpful until they're a little older also.

Dimension	Barrier	Operational definition	Representative quote
	Perception or anticipated perception of some parents/ caregivers	If the provider perceives that some parents/caregivers will object to tech integration, the storytime provider may be reluctant to do so	1: "I don't know if maybe the perception, some parents don't want any technology, that would keep some people from appreciating it."
	Tech is distracting for young children	Provider believes technology is distracting	5: "Personally, I think I kind of get distracted by the media, so, then I think they would, too.
Library system	Lack of access to devices	Library does not have a certain device or technology even though the provider would like to have or think useful for storytime	24: "Um, I'll be honest with you, if we had the ability, I would love to use some like smart TVs, smart boards, those kind of things…. We just don't really have that option here."
	Lack of time	To integrate tech into storytime, the provider has to have time to explore tools and know the best resources/media to integrate, and that takes time	1: "And part of it's time, too. Having the time to find quality resources, and to learn how to use them. Because we have the technology, I think, in our system to implement it. "

Dimension	Barrier	Operational definition	Representative quote
	Lack of training	Provider thinks self doesn't have the knowledge, interest, skill, or training to use technology during storytime	15: "And I'd be open to ways to use it, but I guess I haven't taken, you know, any trainings on … I mean, I really haven't seen a lot of things offered at conferences."
	Old facility	Library does not support installing newer technology	21: "... that's a thing that we have struggled with previously because of our infrastructure and set-up. It was almost a hazard to set up a projector and have some sort of digital aspect to storytime."

DISCUSSION

Purposes

Experiential

Many of the storytime providers' purposes for using technology revealed a goal to create a positive, engaging experience for all children and adults who attend storytime, a theme that prior research has highlighted.[22] Specifically, technology facilitates the sharing of visual aids, sound effects, and songs. Providers also use technology to encourage adult participation, and like their early childhood educator colleagues, storytime providers in this study reported using technology to scaffold and coordinate children's gross motor movements with songs and action rhymes.[23]

Learning

Storytime providers' responses also show the aim to contribute to the learning of children and adults in storytime. This finding mirrors those of Goulding, Shuker, and Dickie, which found that providers like to use technology in ways that coincide with the aims of children's services.[24]

Two of the purposes show an awareness of best practices in technology integration: support for adult-child interaction and teaching caregivers.[25] Additionally, storytime can be an opportune time for providers to model technology best practices for caregivers as providers have been modeling literacy best practices throughout the history of storytime programming.[26] Importantly, when storytime providers do model and intentionally seek to support caregivers' learning, caregivers expand their knowledge, experience heightened confidence, and tend to utilize the strategies they encountered.[27] Notably, storytime providers tend to feel discomfort with providing instructional or developmental information directly to caregivers via "asides"; thus, a more palatable approach for many storytime providers might include using "we" language along the lines of "When we use digital media, we want to be sure that we are developing healthy habits. Some families set a timer to help them monitor the duration of their children's screentime."[28] One way that storytime providers might model digital media use is to search for and find information related to the storytime theme or book in one of the library's databases. For example, if a book shared in storytime included a sloth, the storytime provider might demonstrate how to search for a video of a sloth in one of the library's digital encyclopedias (e.g., Encyclopedia Britannica).

Storytime providers should also keep in mind that digital play can be incorporated into the informal activities that typically occur before and after storytime programs as a means to support children's social interaction with other children.[29] For example, if puzzles are typically included as one of the informal activity options before or after the storytime program, the provider might offer both traditional and digital puzzles (e.g., https://kids.nationalgeographic.com/games/puzzles/) on library-owned tablets and provide a simple how-to if needed.

Supports and Barriers

Through the process of open coding, researchers identified four dimensions that storytime providers' perceived supports and barriers could fall into based on the primary influential factor: provider, library system, participants, or content.

Provider

The providers' perceptions about technology and experiences with technology in the library setting serve as facilitators or barriers to integration. If a provider is aware of useful technology, familiar and comfortable with its use, knowledgeable of research supporting technology use, has a

professional philosophy that can accommodate technology use, and/or has had a positive experience trying out technology, then these may be factors that lead to the adoption of technology in storytime. On the other hand, if the provider has concerns about the difficulties of technology use or the amount of time children spend on screens, if the provider's professional philosophy views storytime as a deliberate alternative to time with technology, or if the provider has had a negative experience with technology, then these may be factors that prevent the adoption of technology in storytime. These same factors affect early childhood practitioners and influence their decisions to incorporate technology into classroom practices.[30]

The factors that lead to technology integration could be seen as related to media mentorship. A media mentor has awareness, familiarity, knowledge, and a professional philosophy that supports technology use, all of which were factors identified by interviewees. Professional training in mentorship was mentioned by one interviewee (17) who stated, "We did a digital mentoring training about how to appropriately model, like, tech skills and screen time with families." Thus, some providers' responses indicate some general awareness of the currently emphasized best practice of media mentorship. However, the ambivalence toward the role of media mentor that Goulding and colleagues found amongst librarians is also found here as interviewees' responses do not give a clear picture of how they model technology use for caregivers during storytimes.[31] In addition, responses that highlight barriers to technology integration show ways in which some providers are opposed to employing the role of media mentor specifically during storytime. As such, our findings align with prior observational studies that noted "few instances of librarians willing to speak directly to parents about how to interact with their children using technology."[32]

Participant

Providers consider the perspectives of the adult and child participants in storytimes in relation to integrating technology. Providers are more likely to integrate technology if they view it as an aid to facilitating sessions for large groups, they believe caregivers will be open to the technology, and they appreciate that young children show a high interest in devices such as iPads. However, children's high interest in devices was seen by other providers as a negative aspect of technology use and a barrier to integration because they thought children were too focused on the technology itself or would be distracted by the technology. Just as early childhood teachers have been encouraged to broaden their perspectives of literacy to encompass digital literacy, so too might storytime providers, as this shift in focus would enable them to view these incidences as engagement rather than distraction.[33] Also, the same interviewee who thought caregivers might be open to technology in storytime expressed the concern that other caregivers might not like its use. Our findings related to caregiver reaction echo similar findings from Goulding and colleagues: the reaction that providers anticipate from adult participants might be either a support or a barrier for technology integration.[34]

Library System

Two aspects of the library system were present in both factors and barriers: access and training. When the library system in which the provider worked gave them access to technology and training in its use for programs, they were more likely to integrate technology. In contrast, when a provider did not have access to technology, the library building did not support its use, or training was not given, the provider was less likely to integrate technology. Libraries pride themselves on providing the highest level of service to members of the community and "removing barriers to access presented by socioeconomic circumstances."[35] Yet, if libraries are to facilitate the digital learning of young children, it is necessary for them to recognize the digital divide impacting

children's access to technology throughout the world, and parents' reluctance to spend money on digital apps.[36]

Content

Content was a dimension only found in factors that support technology integration, not in barriers. Providers used or wanted to use technology because they could connect the technology to two essential elements in the content of storytime: interactivity and theme. This dimension relates to purposes for technology use in the learning category as providers want to use the interactivity of technology as well as technology directly related to the session's theme to boost children's learning. Indeed, child learning has long been librarians' goal in providing storytime programs as has facilitating the development of parent skills.[37]

CONCLUSION

Technology is prevalent in the lives of children and many begin interacting with digital tools as early as the first year of life; and caregivers seek guidance regarding their children's technology use.[38] While ALSC has championed children's librarians as media mentors, findings from this study, coupled with those from prior research, highlight storytime providers' opposition to the media mentor role and the integration of technology within storytime programs.[39] Some first steps storytime providers might take are to integrate the digital tools the library is already providing. For example, if the library offers e-books (e.g., via Libby), the storytime provider might consider integrating one or more picturebooks from that collection into storytime. Alternatively, if the library does not have the tools necessary to share the book electronically during the program (e.g., a screen large enough for the storytime group), the provider might read the print version but then follow that up with a comment along the lines of "Grownups, did you know that the library also offers this as an e-book that you could read on a phone, tablet, or other device? I would be happy to show you how to access it and other e-books after the program." Providers looking for other ways to incorporate digital tools into library programs might read strategies recommended by librarians in a fully and freely accessible online book.[40]

As scholars have previously noted, early childhood providers, including those who support young children and families in libraries, need much more professional development.[41] Specifically, the field needs more opportunities for librarians and other early childhood educators to develop their knowledge and skills within the realm of digital technology for young children, but they also need training that advances the notion of media mentor and boosts their confidence and identities relative to that role.[42] The Institute of Museum and Library Services recently funded a project designed to support librarians' knowledge and skills within the realm of family media for children ages five to eleven years—and products from that project are certainly a good starting place for storytime providers; however, additional resources and research focused on library programs and services designed for children from birth through five years are needed.[43] If librarians are to embrace the media mentor role with confidence and the necessary knowledge and skills required of the task, much greater attention should be devoted to the responsibility and more support in the way of professional development and resources is necessary.

ACKNOWLEDGEMENT

This work was supported by the Institute of Museum and Library Services [Federal Award Identification Number: LG-96-17-0199-17].

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