# Ten Technology Resources for a Children's Librarian

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### Introduction

A modern children's librarian requires more resources than simply the books in his or her collection. While the resources in this document are not comprehensive, they provide a starting point for exploration. These resources were chosen with the intent to enhance library services for children.

### Blue-Bot

https://www.bee-bot.us/bluebot.html

The Blue-Bot is a new and improved version of the much-loved "Bee-Bot," which introduces young children to the world of coding and helps to teach sequencing, estimation, and problem-solving. This version can do everything Bee-Bot does and more, with the ability to repeat command sequences, complete 45-degree turns, and it also has a remote control. In addition, there are free apps available with which users can type code first and then send it to Blue-Bot to have it perform the task(s). Although the cost may be a deterrent at about $120, it is more durable and has a rechargeable battery, unlike its cheaper competitor, the Code-A-Pillar (about $50), and it is a better investment than its predecessor, the Bee-Bot, which is about $90. This website (http://bcegamesineducation.weebly.com/bee-bots.html) has ideas for using a Bee-Bot or a Blue-Bot for educational purposes, which could easily be adapted to fit a library program.

### Nebraska Library Commision

http://nlc.nebraska.gov/youth/librarians.aspx

Some of the best resources are those that can point you to multiple different resources. On the Nebraska Library Commission's website, some of the listed resources are specific to or limited to Nebraska residents, but most of the resources are available to all users, regardless of geographical location. Librarians from other states may wish to look into similar sites, more specialized to their own geographical area. This site still has links to websites and activity pages, resources for crafts, resources for collection development, lists of applications, and other information it would be good for all children's librarians to know about. In particular, the coding resources are helpful (http://nlc.nebraska.gov/youth/youthcoding.aspx). Listed by age, these websites and applications build on each other, so that when a user has mastered and/or become bored with one, he or she can move on to another.

### Makedo

https://www.makedo.com

Makedo is a company that creates plastic tools for cardboard construction. While the tools are affordable for purchase, the website itself is a great resource. Cardboard is an affordable medium for lots of STEM/STEAM library programs and makerspaces. This website hosts an inspiration gallery of cardboard creations by other users, instructional videos for large-scale projects, and free printable files to 3D print some of Makedo's tools. Makedo was recently recognized as a low-cost resource in a session of the Library 2.0: Makerspace Worldwide Virtual

Conference hosted by The School of Information at San José State University. The session is titled *Low Cost Tools to Bring Making into Your Library* and can be found at http://www.library20.com/page/makerspaces-recordings.

### Be Internet Awesome
https://beinternetawesome.withgoogle.com/
Be Internet Awesome is a free online etiquette and safety curriculum created by Google. The lessons are learned through an interactive game called Interland where players learn how to learn discern real from fake information, how to keep their information safe, how to treat others online and how to ask for help. Interland does not require users to have a Google account to play the game or to download any of the materials. For librarians, this would be a great, easy addition to any technology club or game night to reinforce library conduct and to support a safer, more inclusive library space. Be Internet Awesome could also be the basis for its own program that includes an in depth discussion of internet safety and etiquette behaviors for kids and teens.

### Project Torino
https://blogs.microsoft.com/ai/2017/03/15/project-torino-microsoft-creates-physical-programming-language-inclusive-visually-impaired-children



Microsoft is currently working on a system called Project Torino for kids to physically create code by connecting pods together to build programs. It is geared toward kids age 7 to 11.  It is designed to make sure that kids who have visual impairments or other challenges can participate in coding classes along with all their classmates.  One of the key principles of the project is inclusion. The ultimate goal is that it will be a pathway for visually impaired, dyslexic, or autistic kids to a career in software engineering or computer science. The system is also designed to grow with kids. Once they have mastered the physical programming language, they also have created an app that allows kids to transfer the coding they have done with the physical system into text-based code, and then use other assistive technologies to continue coding.  In Thieme, Morrison, Villar, Grayson, and Lindley (2017) we find more information on this project and how technology can support children with mixed-visual abilities.

### Google Cardboard
https://vr.google.com/cardboard/
Google Cardboard is a low cost, interactive method of introducing virtual reality (VR) technology to the library.  Kits can be found online for $15 or less or you can even download free templates if you have all of the necessary materials.  VR technology can be used not only for entertainment but also as a way of engaging and teaching students.  Also, librarians can use the free Google Expeditions app (https://edu.google.com/expeditions/#header) to take educational VR field trips to Mars, the Guggenheim Museum, the Great Barrier Reef, and other destinations.  Librarians or "guides" can lead students through the location using a tablet. These tours include annotations, questions, and points of interest.  It should be noted that extended use may cause dizziness, but they can be great for fun and interactive exploring. Marcotte (2017) lists Google Cardboard and Google Expeditions as two of the top ten library tech trends.

## TinkerCAD

https://www.tinkercad.com/

A free online computer automated design (CAD) and printing app designed with beginners in mind. New users are treated to a simple, yet effective, walk-through of the software called "Lessons" guiding one through operational basics such as camera manipulation and stacking, to more advanced techniques such as making holes. A strong online community that stretches out



into other online communities like Shapeways (https://www.shapeways.com) provides a boundless supply of inspiration. Posted designs can be downloaded free of charge. With the ever-growing popularity of 3D printing, anyone from hobbyists to Makerspace managers will find a powerful ally in TinkerCAD.

## New Matter MOD-t 3D Printer

https://newmatter.com/mod-t/



A cursory glance on Google for 3D printers will retrieve a staggering array of options, many of which have asking prices that go into the thousands of dollars - tools well out of reach for all but the most affluent or die-hard enthusiast. New Matter's foray into this expanding and competitive market offers a more reasonably priced product at around $300. Other features New Matter's MOD-t boasts is a quiet, Wi-Fi driven, printer designed with beginners in mind with a minimalist design that doesn't demand large shelf real estate. Those new to the world of 3D printing or are managing a Makerspace program might want to consider this product.
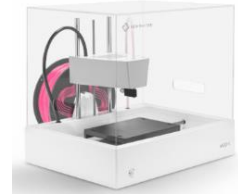
## Kahoot!

kahoot.it/



Kahoot is a free, quiz-based learning tool for educators and students. Its premise is simple but allows for flexibility. Someone creates a quiz (making up the questions and answers), the quiz is projected or displayed for players to see, players connect with their devices—tablets, smartphones, laptops, desktops, or anything similar that connects to the internet—and the game begins! There is no app or software required. To connect to a game, simply visit the Kahoot! website and enter a PIN generated for the quiz. It's an accessible union of learning and technology, a digital twist on the classic study method of flash cards. As noted in LaRosa and Plump (2017), the tool has been received well by students, drawing the attention not just of those most likely to raise their hands, but of introverts too. It is a tool as useful for teaching as it is for students reviewing.

## Beanstack

https://www.beanstack.org/

Beanstack is a mobile-friendly readers' advisory tool for ages 0-13. Using patron information like reading level, age, and topics of interest, Beanstack offers personalized recommendations from a given library's collection. It is not meant as a replacement for face-to-face readers' advisory, rather as a way to keep families engaged with their library through weekly emails to patrons regarding new and interesting titles. One popular use for Beanstack is summer reading programs. In fact, some libraries have seen a spike in summer reading program participation after implementing Beanstack (Hunter 2015).

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