FEATURE

Story IN A

time

DIGITAL

WORLD

Making a Case for Thinking Outside the Book

Andrea Paganelli

andrea.paganelli@wku.edu

What We Know

Storytime is a fixture in many school libraries and is important in helping foster students' reading abilities. Storytime is a top strategy for developing skills that build to reading; reading aloud to children should begin early in their lives and be present throughout the educational process (Anderson et al. 1985; Trelease 2006). Through modeling from adult readers, storytime can affect literacy development and motivation to read. Our students who read and hear a variety of stories are more likely to become lifelong readers and perform better on tests and assignments (Krashen 2004; Ross, McKechnie, and Rothbauer 2006).

Storytime creates an environment where students are able to note the differences between the spoken and written word (Ross, McKechnie, and Rothbauer 2006). Students are exposed to the parts of a story, genres, vocabulary, authors, and illustrators in a manner that keeps attention and interest. At its best, storytime is much like a performance for students. Reading aloud during storytime can connect the student audience to text through verbal and visual elements, piquing student interest and engagement (Keller 2012).

With a history of success, why would we want to alter storytime by incorporating technology?

As school librarians, we have all stood in front of a group to perform a storytime read aloud and wondered if it would successfully engage students. Would 21st-century students be able to connect with the book? For his 2015 *Atlantic* article about optimizing digital books for young readers, Greg Topo interviewed long-time school librarian Laura Fleming and noted the changing connection between students and books.

As a practicing librarian with twelve years of experience Fleming spent time looking for engaging books for storytime with her students. Each year it seemed students became less interested in her offerings. Fleming felt like a comedian performing for students; when speaking with Topo she said, "You have that go-to joke that always gets the crowd going," but her material was no longer capturing the audience's attention (2015). Regardless of her preparation and attempts at engagement, the time came when the books she selected were no longer reaching students.

Table 1. Selection criteria for traditional read-aloud storytimes and digital storytimes.

READ-ALOUD HANDBOOK BOOK SELECTION	DIGITAL STORYTIME MATERIALS SELECTION
Selections should include a wide variety of genres.	Selections should include a wide variety of genres and media to engage students.
Selections should be age appropriate.	Selections should be age appropriate and aligned with the technology proficiency of the students.
Listening levels and reading levels are different.	Listening levels and engagement levels are different.
Select books that will engage students.	Select materials that will engage students.
Competition for student's attention is strong.	Competition for student's attention is strong.
Select books that lend themselves to extending the storytime with projects such as art, drama, reader's theater, or writing.	Select materials that lend themselves to extending the digital storytime with cross-curricular elements.
Select carefully when reading to older students to distinguish between books that are appropriate for hearing and those for individual reading.	Select carefully when reading to older students to distinguish between materials that are appropriate for hearing and those for individual reading.

So, how did Fleming address this? In 2009 she thought outside the traditional book and engaged readers with the *Skeleton Creek* series that included embedded URLs augmenting the plot. This change brought about greater student engagement with the storytime material—but younger students were frightened by *Skeleton Creek*'s ancillary videos. When she introduced fifth-graders to *Inanimate Alice*, though, students were transfixed (Topo 2015). Does this engagement equal learning? It has potential. Laura Fleming's experience indicates that careful selection of high-quality materials and supportive technologies can help. Here are some of Samantha Roslund's selection considerations for thinking outside the paper book (2012):

1) Quality narration and appropriate dictionary functions (embedded definition assistance) both could be considered positive for storytime.

2) Content-connected animations can add to student comprehension of the story and add to positive reader experiences.

The lines between books and other media are blurred for Fleming's students. They do not see the distinction between traditional books and transmedia materials (a term used to describe storytelling across multiple media formats). "'*Alice's* world,' [Fleming] said, 'is the world the kids are growing up in'" (Topo 2015). For better or for worse, digitally augmented and/ or created books are a part of our personal, professional, and educational landscapes.

READ-ALOUD HANDBOOK GUIDE	DIGITAL STORYTIME GUIDE
Create an environment in which storytime and reading are enjoyable.	Create an environment in which storytime and reading are enjoyable and can support digital needs.
Read the story ahead of time to avoid surprises.	Complete a run-through of the selected materials ahead of time to avoid surprises.
Creatively edit when necessary.	Creatively edit when necessary.
Display enjoyment for the book selected.	Display enjoyment for the materials selected.
Read with expression and enthusiasm.	Read and direct students with expression and enthusiasm.
Make time to present storytime sessions.	Make time to present digital storytime sessions.
Have students become actively involved in storytime.	Have students become actively involved in digital storytime.
	Have a back-up plan in case of technology problems.

Table 2. Tips for preparing for and presenting traditional and digital storytimes.

Venturing into Digital Storytime: How Should We Prepare?

The process of planning for a digital storytime can be considered through the same lens as planning a more traditional storytime. School librarians planning successful digital storytimes may need to commit to an additional level of planning and consider creating a back-up plan in case technology problems arise.

Table 1 contains Jim Trelease's thoughts for selecting books to use during traditional storytime (from his 2006 *Read-Aloud Handbook*) along with my augmented guide for digital storytime materials selection. Note that the differences for material selection are minor and foster engagement and use of added media.

Table 2 contains tips for preparing and presenting traditional read-alouds and my augmented tips for digital storytimes; these are adapted from Jim Trelease's *Read-Aloud Handbook*.

Innovation + Engagement = Digital Storytime at Any Age

"It was, [Fleming] remembered, the first standing ovation she ever received as a librarian" (Topo 2015).

Returning to Laura Fleming's experiences, she found that adding digital elements to storytime created an environment of excitement,

revitalizing student interest. Her standing ovation was received when she read a series that included digital augmentations. Increased student engagement was the result.

When she used *Inanimate Alice*, which has embedded multiple media, it engaged her fifth-graders in a way they had never before experienced. Their excitement was palpable; after she projected the story onto the interactive whiteboard the students were hooked. "A few students approached her afterwards to thank her, tears glistening in their eyes" (Topo 2015). The immersive possibilities for student engagement create an opportunity to draw in students of all ages, even blasé fifth-graders!

What Is Out There and Way Out There?

Continuum of Options

The following are four distinct categories of digital storytime options with concrete examples that can be used at the elementary, middle, and high school levels of interest. The examples represent increasingly adventurous levels of departure from the traditional storytime format.

- **Augmented reality** format uses materials that are standalone books created with additional visual materials that are digital.
- **Dynamic dialogue** format uses materials that are created with embedded audio, dictionary, or other digital functions.

Figure 1. Fantastic Flying Books of Mr. Morris Lessmore *(Source: Moonbot Studios).*

- **Story author** format uses projects and tools selected to enable students to create and read their own books during storytime.
- **Code author** format uses projects and tools selected to enable students to define their own storytime through use of multiple

Table 3. Examples of augmented reality titles.

TITLE	AUTHOR	FORMAT	AGES	DESCRIPTION	URL	COST
The Fantastic Flying Books of Mr. Morris Lessmore	William Joyce	Book with Application	4–8	The story is about a man's magical life among books.	Book: <http://moonbotstudios.com/2013/01/the-fantastic-flyings-books-of-mr-morris-lessmore-picture-book.html> App: Available at iTunes	Under $20
The Numberlys	William Joyce	Book with Application	5–8	Travel along with the Numberlys from a gray world containing numbers but no letters to a colorful world with an alphabet supporting infinite possibilities.	Book: <http://moonbotstudios.com/2014/10/numberlys-picture-book.html> [page includes link to app sources]	Under $20
Inanimate Alice	Kate Pullinger and Chris Joseph	Transmedia	10–18	In the first episode, Alice is an eight-year-old game designer living in far north China. Her dad goes missing on a trip to search for oil. Alice and her mom go searching for her dad. More episodes follow as Alice grows up.	<www.inanimatealice.com>	Free
Skeleton Creek	Patrick Carman	Transmedia	8–12	Skeleton Creek is an unusual town. Ryan and Sarah try to get to the heart of a mystery, but an accident hampers their investigation.	<http://skeletoncreekfans.com>	Under $20

THE IMMERSIVE POSSIBILITIES FOR STUDENT ENGAGEMENT CREATE AN OPPORTUNITY TO DRAW IN STUDENTS OF ALL AGES, EVEN BLASÉ FIFTH-GRADERS!

IT'S NOT A FAIRYTALE; IT CAN BE A REALITY. IN A SCHOOL LIBRARY NEAR YOU, STUDENTS CAN CREATE AND PUBLISH THEIR OWN E-BOOKS.

Figure 2. Trip and Grace, the main characters in the interactive story Façade. (Illustration courtesy of Procedural Arts).

Figure 3. Dot and Dash programmable robots. (Photo courtesy of Wonder Workshop).

digital resources to create and share their own stories through the use of code.

In a World of Augmented Reality

Not a book, not a movie. This is a hybrid book and application that augments reality and will keep children's interest. It can be shared as a projected whiteboard experience. Those skeptical about the story-telling power of technology will be excited by augmented reality. "The app isn't replacing the book; it's showing you a way to bridge the gap between the old and the new," explains Brandon Oldenburg of the company Moonbot, which created *The Fantastic Flying Books of Mr. Morris Lessmore* (Thorne 2012, 1; see figure 1). The limitation is that for the book to be truly interactive each child would need a copy of the text and an iPad. Examples of augmented reality titles are described in table 3.

Storytime to Techno-Storytime

E-books with dynamic dialogue (embedded access to additional resources) can be used to expand storytime and increase the level of audience engagement. Dynamic dialogue can add educational value to the experience by allowing students to access additional
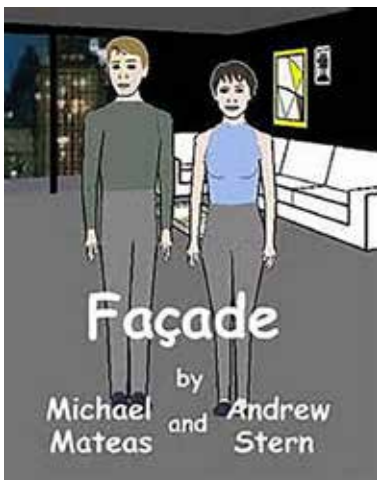
information, audio, visuals, and dictionaries. Allison Tran (2014) spoke of the challenge and excitement: "I was amazed to see how effectively we can engage an audience with a book app. I realized that the presentation style and level of audience involvement isn't necessarily any different from 'traditional' storytime—it's just that the book is so much more visible."

Once Upon a Time, Students Have a Voice

It's not a fairytale; it can be a reality. In a school library near you, students can create and publish their own e-books. Storytime no longer must be passive; students can create their own happily-ever-after ending by reading their own stories to and with classmates. The media included in table 5 are designed to allow students to create and share their own books during storytime.

From Passive to Interactive—Crack the Storytime Code

Is coding an important thing to teach kids? Why or why not? Texas has passed legislation allowing coding to fulfill high schools' foreign language requirements (Adam and Mowers 2013). Coding can make the difference between our students' reading webpages and creating webpages!

The trend to teach kids coding meets its match in Dot and Dash, robots created by the folks at Wonder Workshop. Dot and Dash are robots that are programmable with Wonder Workshop apps compatible with iOS or Android devices. Designed to be fun and to allow the basics of coding to be learned with ease, Dot and Dash also allow students and educators to integrate coding and fun with other subjects and activities,

Table 4. Examples of e-books and story apps with embedded access to additional resources.

TITLE	AUTHOR	FORMAT	AGES	DESCRIPTION	URL	COST
The Going to Bed Book	Sandra Boynton	Application	2–5	A silly trip all around to get to bed and become sleepy.	<https://play.google.com/store/apps/details?id=com.loudcrow.goingtobed>	Under $10
Alice for iPad	Atomic Antelope	Application	8–12	Digital reimagining of the classic Lewis Carroll book engages a new generation of readers.	<https://itunes.apple.com/us/app/alice-for-the-ipad/id354537426?mt=8&ign-mpt=uo%3D4>	Under $5
Jack and the Bean Stalk Children's Interactive Book	Ayars Animation Inc.	Application	4–12	The app version of this classic story includes enhancements that appeal to a wide range of ages.	<https://itunes.apple.com/app/jack-beanstalk-childrens-interactive/id364871348?mt=8&ign-mpt=uo%3D4>	Under $5
Julius Caesar	William Shakespeare	E-book	11–16	This graphic novel's high interest level (grades 5–9) and lower reading level (grades 2–3) make it a good choice for struggling older readers.	<www.capstonepub.com/library/products/julius-caesar-4>	Under $40
The Last Dragonslayer: The Chronicles of Kazam	Jasper Fforde	E-book	11–16	Enter a world where magic is real but disappearing, and people have dreams of the last dragon. Fifteen-year-old Jennifer is forced to deal with circumstances that are definitely beyond her control.	<www.amazon.com/The-Last-Dragonslayer-Chronicles-Kazam/dp/0544104714>	Under $10

Table 5. Examples of resources that support students' creation of their own e-books.

NAME	FORMAT	AGES	DESCRIPTION	URL	COST
Storybird	Website	6+	Authors can create their own stories by adding text to existing professional artwork.	<www.storybird.com>	Free
Façade	Download	12+	Students can use this download to control the words and actions of the Façade characters.	<www.interactivestory.net>	Free
AnyFlip	Website or Download	10+	Authors can use AnyFlip to create and share media-rich flipbooks.	<www.anyflip.com>	Free
Canva	Website or iPad app	5+	Canva makes graphic design easy. It can be used to create a book starting from a blank page or an existing layout.	<www.canva.com>	Free
Storyboard That	Website	5+	With Storyboard That students can use existing templates to bring their own stories to life.	<www.storyboardthat.com>	Free

AS WITH ANY ADDITION TO A LIBRARY PROGRAM, YOU CAN START SMALL AND FOCUS ON RESOURCES YOUR STUDENTS ARE ALREADY INTERESTED IN. ASK THEM!

Table 6. Wonder Workshop hardware and apps that support students' exploration of coding

NAME	FORMAT	DESCRIPTION	URL	COST
Dash	Robot	Dash is a mobile robot that can be programmed.	<https://store.makewonder.com>	Less than $200
Dot	Robot	Dot is a stationary robot that can be programmed.	<https://store.makewonder.com>	Available with Dash in sets, some of which include accessories to expand the robots' capabilities.
Go!	Application	This application gets users started in the process of learning the uses and abilities of Dot and Dash.	<www.makewonder.com/apps>	Free
Path	Application	Dash's course on a straight line or through a maze of obstacles can be programmed.	<www.makewonder.com/apps>	Free
Blocky	Application	More-complex actions can be programmed by assembling "puzzle pieces" of code usable with both Dash and Dot.	<www.makewonder.com/apps>	Free
Xylo	Application	With Dash's xylophone accessories and this app, kids can direct the robot to play music on the xylophone.	<www.makewonder.com/apps>	Free

including storytime. The robots support recorded audio and sense each other's presence. Students can use these features to program the robots to tell an existing or newly created story. In this way, Dot and Dash can be the presenters at storytime—while looking adorable (see figure 3). Table 6 includes apps that can be used to program Dot and Dash. All are suitable for ages 5+, though children under 8 will need adult help with Blockly.

Getting Started

The charts of books, applications, websites, and transmedia options with pricing discussed here may make digital storytime seem too complicated or too expensive for your school library program. As with any addition to a library program, you can start small and focus on resources your students are already interested in. Ask them!

If your students are interested in telling their own stories, look at AASL's lists of Best Websites for Teaching and Learning. Digital storytelling tools, most of which are free, can support your budding authors who want to share their stories with classmates and with wider audiences.

If you and your students want to incorporate e-books in storytime but your budget is tight, explore the White House–led initiative Open eBooks, which at the time of this writing is in the planning stages. The goal is to bring free e-books to children in need (Miller 2015). Learn more at <http://dp.la/info/get-involved/dpla-ebooks/open-ebooks-initiative>.

Many basic e-books without bells and whistles are available online free or at low cost. A quick search will yield a wealth of options. For example, the Association for

Library Service to Children's (a division of ALA) Great Websites for Kids includes a link to We Give Books <www.wegivebooks.org>, a site that lets your students read online e-books for free and trigger donations of hardcopy books to someone else.

Regardless of the format, our students need positive experiences with lots of books in an environment that encourages lifelong learning under the supervision of a trained school librarian, who can bring joy and interest into reading (Atwell 2007). To support lifelong reading, we school librarians can create

storytimes that are well thought out and inclusive of powerful, engaging text with supportive media.

Andrea Paganelli

is an assistant professor at Western Kentucky University in Bowling Green. She is a member of AASL and is serving on the Knowledge Quest *Editorial Board and the Reference and User Services Association's Collection Development and Evaluation Section's University Press Books for Public and School Libraries Committee.*

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