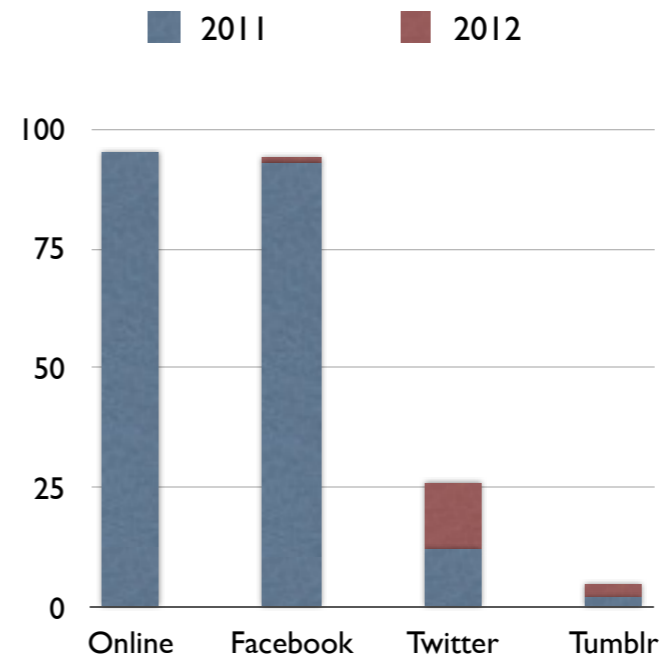


Teens, Technology, and Programming

New Hampshire YASD, September 2013

Teens and Technology Practice

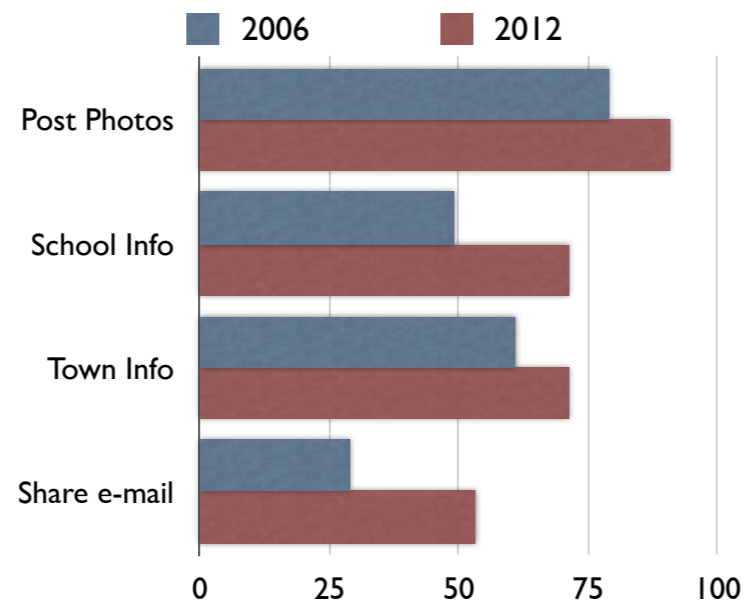
- Teens are still adopting technology at a rapid pace, but there are plateaus.



Teen cell phone use is continuing to rise, and the number of teens who use smartphones is as their cellphone increases each year. Teen adoption of smartphone is close to that of adults, while teens use of tablets outpaces that of adults. 95% of teens are on the internet, and 94% of them are on Facebook, a 1% increase from 2011. (Pew, 2013) However, Twitter and Tumblr are rapidly growing. One of the strongest reasons that Twitter, Tumblr, and Instagram (no stats yet on Instagram) continue to rise is the ability to make and share on these platforms, encoding skills and meaning in different ways.

Madden, Mary et al. *Teens, Social Media, and Privacy*. Pew Internet, 2013. <http://www.pewinternet.org/Reports/2013/Teens-Social-Media-And-Privacy/Summary-of-Findings.aspx>

Teens and Privacy



- Teens today are sharing more information than they ever have before

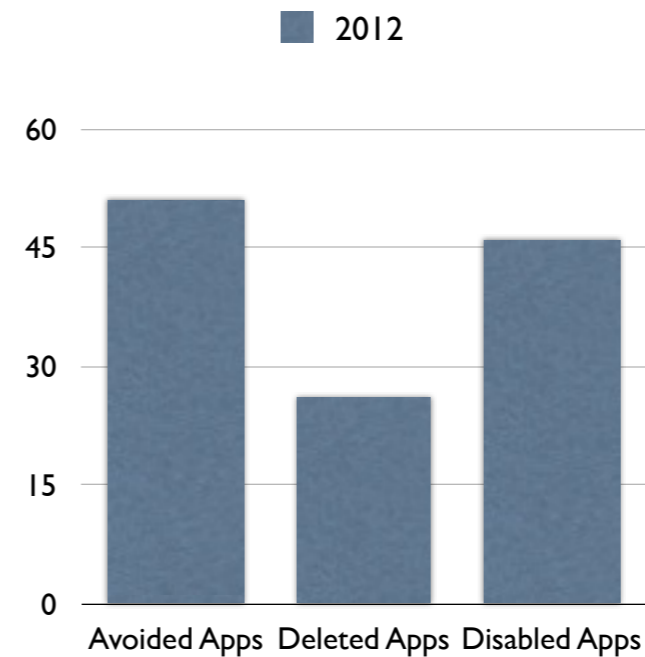
Given the increased pressure on social media sites to begin targeting and marketing to their customers, it has become part of every online experience to provide more personal data than was initially requested.

Teens are posting their real names, birthdays, relationship status, videos of themselves, location data, regrettable content, and more.

Madden, Mary et al. *Teens, Social Media, and Privacy*. Pew Internet, 2013. <http://www.pewinternet.org/Reports/2013/Teens-Social-Media-And-Privacy/Summary-of-Findings.aspx>

Teens and Privacy

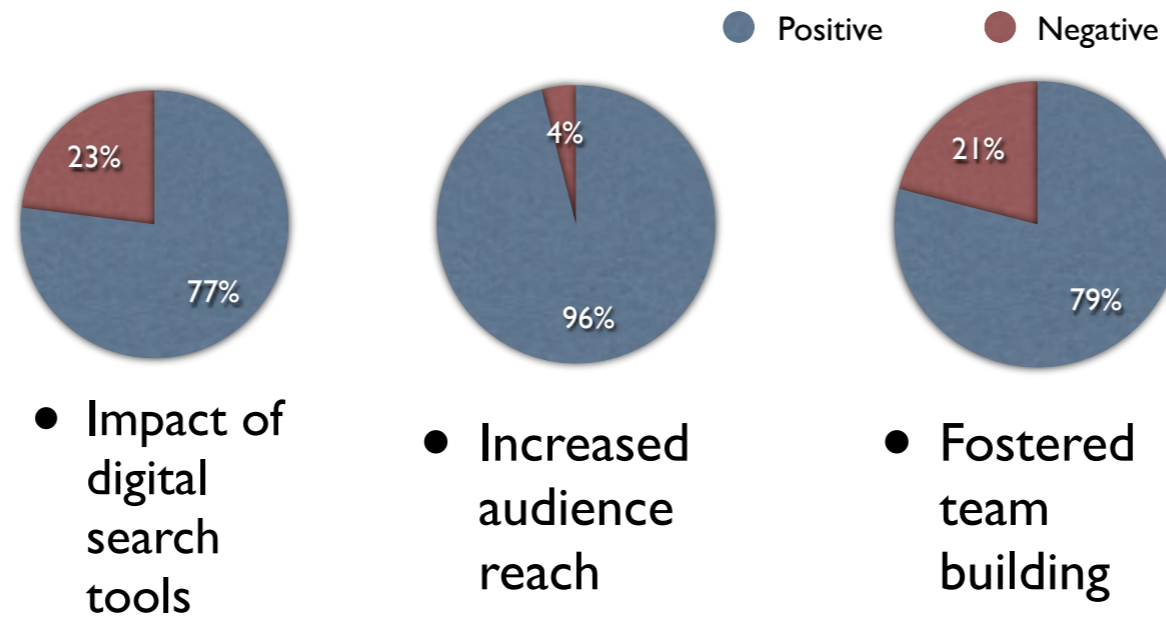
- Teens are tracking privacy settings, and will limit the information they provide.



However, teens are not less concerned about their privacy, despite articles and comments to the contrary. While name, age, relationship, interest, and location can all be shared, teens are aware of privacy settings, utilize them, and will avoid using apps or sharing data with them that they don't want.

Madden, Mary et al. *Teens, Social Media, and Privacy*. Pew Internet, 2013. <http://www.pewinternet.org/Reports/2013/Teens-Social-Media-And-Privacy/Summary-of-Findings.aspx>

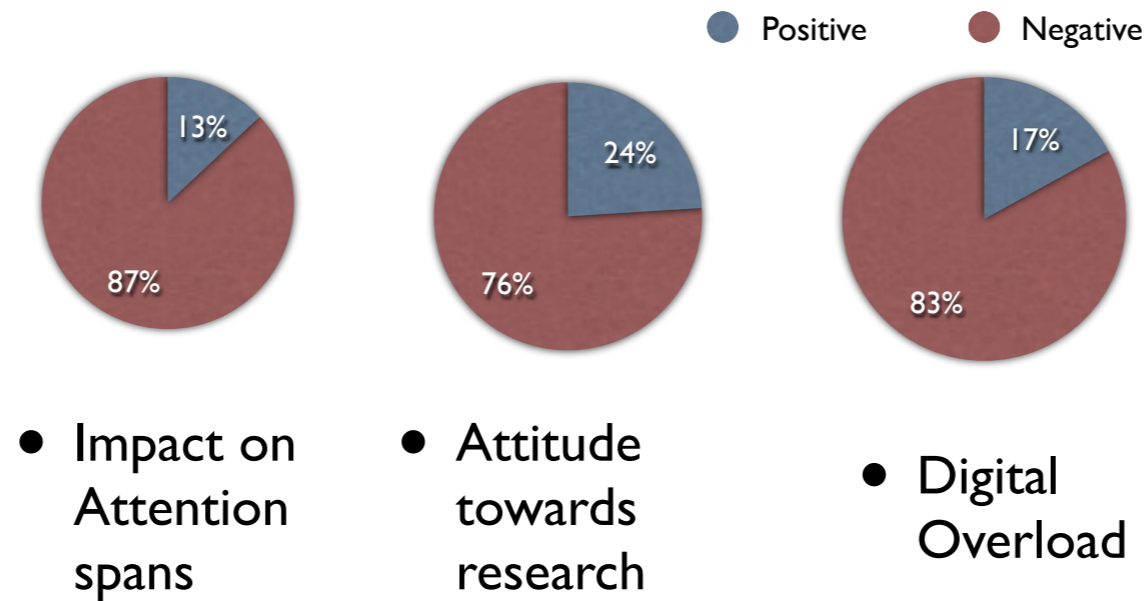
Teens and Productivity



Educators have embraced technology as a way to increase the reach and research of students in the classroom, while libraries have used technology to help teens explore facets of their identity and interests. 99% feel that technology allows teens to access a wider range of information and resources than ever before.

Prucell, Kristen, et al. *How teachers are using technology at home and in their classrooms*. Pew Internet, 2013. <http://www.pewinternet.org/Reports/2013/Teachers-and-technology.aspx>

Teens and Productivity



However, educators have identified some downsides, especially in relation to the Google phenomenon - all info should be easy to find and quick to locate. There's also an issue of too much choice- think grocery store aisle with 100 brands of cookies - how often do you try something new? Teens tend to utilize the same resources over and over again, not taking advantage of all the choices that are out there.

Prucell, Kristen, et al. *How teachers are using technology at home and in their classrooms*. Pew Internet, 2013. <http://www.pewinternet.org/Reports/2013/Teachers-and-technology.aspx>

Teens and Technology



- “Frankenstein is in the room and I don’t want him to tear me apart. If I’m not using technology, I lose them completely.”

Geoff Diesel, NY Times

Teens are accustomed to an always on connection that follows them throughout the course of their day and allows them to get ready access. 2012 Kaiser family study found teens are watching 10 hours of media a day (up from 7 hours 20 minutes in 2010. Of that time at least 20%, or 2 hours minutes, occurs on mobile devices (Rideout, 2010). Half the students watch tv or use the internet most or some of the time they are doing homework. So, what is the response? How many times have we forced technology into a program or activity to try and make sure it would be appealing to teens?

Rideout, Victoria J et al. *Generation M2: Media in the lives of 8 to 18 year olds*. Kaiser Family Foundation, 2010. <http://kaiserfamilyfoundation.files.wordpress.com/2013/01/8010.pdf>

Richtell, Matt. *Growing up digital, wired for distraction*. New York Times, 2010. http://www.nytimes.com/2010/11/21/technology/21brain.html?pagewanted=all&_r=0

Libraries, Teens, and Technology

- Digital Advisory



Libraries are the spaces for teaching digital choices - tech for tech sake, tech for procrastination, tech for empowerment, tech for research, tech for shallowness. Increase in resources available in person and online have expanded the role for tech and information literacy to new levels.

Libraries are the place for transmedia literacy skills. Learning connections, not the connection itself

Tech Appeal



- Technology is a conduit for learning and for exploring, and for discovering.

Jack Martin, YALSA Past President



Libraries can utilize technology within teen programs with an approach to connected learning, providing teens the opportunity to be hands on, to be active, to be engaged and self guided and driven within learning. Interests can't be forced or ignored, but recognized and utilized.

Martin, Jack. *Effectively leveraging social media in library programs*. Connected Learning TV, 2013. <http://connectedlearning.tv/effectively-leveraging-social-media-library-programs>

Maker Philosophy and Libraries

- Increased Motivation through Prototyping and Play
- Interest Driven Learning Opportunities
- Exploration of Multiple Tools, Media, and Practices
- Active Learning Process
- Connected Learning Model

Social
Process
Artifacts

Avoiding the strict associations with school work (not that we don't do it, but we make sure that's not all we do)

Self directed, learner centered inquiry
What do they want to do
What do they think they will learn
What did they learn

Teens, Tech, and Maker Programs

- After school learning
- Lifelong learning



Connect with technology presence and service - not just about digital services. About integrating tech thoughtfully into all the things that we do.

“Libraries are able to adopt new approaches and use incredible creativity in engaging community members in new ways, becoming fertile spaces for making activities. We need to leverage what we know about learning and our trusted role as learning places to help prepare our visitors for success in today’s digital world. Maker culture is one way for libraries to support innovation and creativity, using library space in ways that people both want and need. The IMLS stands ready to support libraries in this way.” - [Susan Hildreth, IMLS](#)

not consumptive entertainment

“Makerspaces are about encouraging our patrons to take initiative and to learn and create. When those patrons walk out our doors, they will know about a project, yes, but they will know also that they are capable of doing more and that the library will help them accomplish it.” - [Caitlyn Bagley](#)

Britton, Lauren. *The making of maker spaces, part 1*. School Library Journal, 2012. <http://www.thedigitalshift.com/2012/10/public-services/the-makings-of-maker-spaces-part-1-space-for-creation-not-just-consumption/>

Bagley, Caitlyn. *What is a makerspace?* ALA Tech Source, 2012. <http://www.alatechsource.org/blog/2012/12/what-is-a-makerspace-creativity-in-the-library.html>

Libraries and Maker Spaces



http://hackerspaces.org/wiki/List_of_Hacker_Spaces



The Idea Box

The Idea Box - Oak Park, IL

<http://oppl.org/events/idea-box>

learn through tinkering, fun, experimentation and play

4

4th Floor

4th Floor - Chattanooga Public Library

<http://4thfloor.chattlibrary.org/tags/chattanooga-public-library>

4th floor is unique because it supports the production, connection, and sharing of knowledge by offering access to tools and instruction.



Maker Space

Maker Space - Westport Public Library
<http://www.westportlibrary.org/services/maker-space>
connect, invent and create



Fab Lab

Fab Lab - Fayetteville Free Library

<http://www.fayettevillefreelibrary.org/about-us/services/fablab>

provide a safe and accessible space where anyone in the community can interact, understand and develop through use of the technologies available in the space.



HYPE

Detroit, Mi

HYPE Teen Center - Detroit Public Library

<http://www.detroitpubliclibrary.org/specialservice/hype-teen-center>

combines digital technology with interaction, resulting in innovation and engagement

Make your own Makerspace



<http://makerspace.com/playbook>

So what do I have the teens make?



[Goal is to think across contexts and assimilate it as part of knowledge and behavior](#)

[Sharable things , artifacts, production](#)

[Opportunity to bridge digital literacy divide - becoming more critical, 62% of teens rely on public libraries for internet - where are they getting their skills with other tech devices as well? e-readers.](#)

Making through Remixing



The Hackasaurus toolkit is a collection of web-based tools, developed by the Mozilla Foundation, to promote HTML skills acquisition in teens. By using Java-based “x-ray goggles” to reveal the source code of web elements, teens learn about HTML tags, such as IMG (image), DIV (division), and P (paragraph). With the toolkit, users can hack any website, swapping out images, writing new text, and inserting their own content - to the local page on their screen. None of the changes happen to the source page, so any other viewer who looks at the initial page will see all the original elements.

For teens who are familiar with coding, Hackasaurus provides an etherpad - a simple web based text editor which allows users to create, collaborate on, and share custom built webpages. There is a curriculum provided on the website with suggested activities and lesson plans.

Mozilla. *Hackasaurus*. Hackasaurus, 2013. <http://www.hackasaurus.org/en-US/>

Making next generation textiles



LilyPad Arduino is a basic introduction to wearable textiles and Arduino. There's no actual coding to be done in order to make the product function, but teaches circuitry and current flow. Using an electroconductive thread, a needle, and a template, teens build circuits that can be controlled using a push button or an on/off toggle. It can be sewn and remade over and over again.

Sparkfun. *Protosnap E-sewing kit*. Sparkfun, 2013. <https://www.sparkfun.com/products/11032>

Making history

- Teens can re-interpret history using apps, media, and more.



Apps such as ARIS or History Pin allow teens to make a unique story out of existing and new resources and materials. What if New Hampshire stole the Boston Tea Party? Or if Vermont declared the war of the north? Research and make it real.

ARIS. *ARIS Mobile Learning Experiences*. ARIS, 2013. <http://arisgames.org/>

Making and Meaning



- Shifting from consumer to creator
- Shape Identity / Share Identity

These projects are not just technology for technology's sake. Each one has participation and a goal in mind. Once you move from meaningless computer playing to something new, you have to capture that meaning and give participants the means to share it out. As imperfect as they are, grades are a means to do this. But Mozilla and MacArthur are looking at new ways of adding meaning and building learning for teens.

Mozilla. *Open Badges*. Mozilla, 2013. <http://openbadges.org/>

Teens and Tech Takeaway

- Teens are largely aware of online safety - digital work should focus on exposing youth to more resources, utilizing skills.
- Technology is not a panacea for programming - plan ahead to make sure goals and opportunities are there.
- Blend programs with digital, physical, and meaning for best results
- Share, Share, Share