Young Audiences and New Authors in a Multimedia Landscape

A Report to the Wayne Elementary School Community

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Media Education Lab
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Executive Summary

Today's children experience a very different set of choices, opportunities and challenges as compared to their parents or their grandparents. Of the 50 million American children age 11 and under, nearly all are participating actively as young audiences with a variety of forms of mass media, popular culture and digital media. They are also beginning to use technology tools as modes of creative expression themselves, developing the capacity to be authors in a multimedia landscape. Adults who care for children need to have a better understanding of the increasingly complex media and technology experiences that children have as audiences and authors, both in and out of school.

Parents and teachers recognize that the rapid expansion of media and technology use by children and youth is taking up ever-larger portions of their waking hours. Children are swimming in a virtual stew of new media genres and formats that are transforming rapidly. Growing up in a constantly connected home, children have hundreds of choices of things to do with media content, including using television, music, handheld and console videogames and applications (apps), DVDs, cell phones, the Internet, and social media. At school, children can use laptops, video cameras and other devices to support their emerging skills of expression and communication and promote engagement in the learning process.

This report highlights findings from a study of 454 children in Grades K – 5 enrolled at the Wayne Elementary School in the spring of 2011. Results show that WES students are highly active consumers and creators of media and technology messages. They have encountered a variety of new media formats and are beginning to develop the skills necessary to use these tools for entertainment and informational purposes. Growing up in media-saturated homes, children in this community see their caregivers as having substantial expertise and authority regarding the Internet and other media. But parents and teachers can continue to develop their capacity to provide an appropriate balance of activities, support and guidance that will help children thrive in today's media- and technology-intensive culture.

Context and Background

A university-school partnership between the Media Education Lab at Temple University and Wayne Elementary School is at the heart of the Powerful Voices for Kids (PVK) program. This program strengthens children's abilities to think for themselves, communicate effectively using language and technology tools, and use their powerful voices to contribute to the quality of life in their families, their schools, their communities, and the world.

Aware of these important issues and committed to the high-quality education of their students, school leaders at the Wayne Elementary School (WES) wanted to take a step towards responding to the needs of children and families today. Working in collaboration with the Media Education Lab at Temple University, school leaders set two preliminary goals:

> (1) assess the needs of children and their families in terms of their home uses of media and technology; and
>
> (2) support faculty and staff integration of digital and media literacy into the instructional program to develop children's knowledge, skills and competencies as authors and audiences by accessing, analyzing, composing, reflecting and using mass media, popular culture and digital media in socially responsible, productive and life-enriching ways.

During the fall semester of 2010, the PVK team planned two initiatives. The first involved the deployment of **in-school mentors** who worked with teachers and students once a week from the end of January through May to develop projects and activities based on principles of media literacy education. Mentors worked with teachers to support a variety of student-centered digital media projects related to curricular initiatives. These included web and video production projects, comic creations, screencasting, and more. For example, Grade 2 students, working with Flip Cams, interviewed their peers as a part of a project from the "Being a Writer" curriculum. As a follow up/extension project, they filmed and edited footage of the Kindergarteners practicing their phonics exercises. Kindergarten students benefitted from the opportunity to strengthen performance and fluency skills and Grade 2 children learned how to offer and receive constructive feedback.

In-school mentors supported the process of brainstorming and developing lesion plans and the provision of resources, materials and other forms of feedback to meet the needs of students and faculty, while gaining an appreciation of the specific school culture. Projects and activities strengthened

students' critical thinking and communication skills and contributed to their digital and media literacy competencies. By working elbow-to-elbow, some teachers who participated in PVK projects increased their confidence in integrating media literacy and technology into their teaching.

Next, we developed a **survey research project**, the purpose of which was to discover how children at Wayne Elementary School use media and technology both at home and at school. We asked children to report their choices as both media consumers and producers and describe features of the media and technology available to them in their home. We asked children to describe parental involvement in media use and to describe how the Internet and other tools are used in the classroom. We used (a) informal interviews with children, parents and teachers in addition to (b) systematic face-to-face focus groups with children in Grades K – 2 and (c) online survey data from children in Grades 3 – 5. Appendix A describes the methodologies we used to collect and analyze the data. In this report, we share the evidence learned from this research.

The university-school partnership was made possible by the generous support of the Wayne Parent Teacher Organization and the Radnor Educational Foundation. WES Principal Sharon McGrath Johns and Sue Dahlstrom, WES Librarian collaborated with Professor Renee Hobbs from Temple University's School of Communications and Theater, and her students, Emily Bailin, Maria Cipollone, David Cooper Moore and Maggie Ricco. Molly Schlesinger provided valuable assistance with data analysis and report preparation.

Key Findings

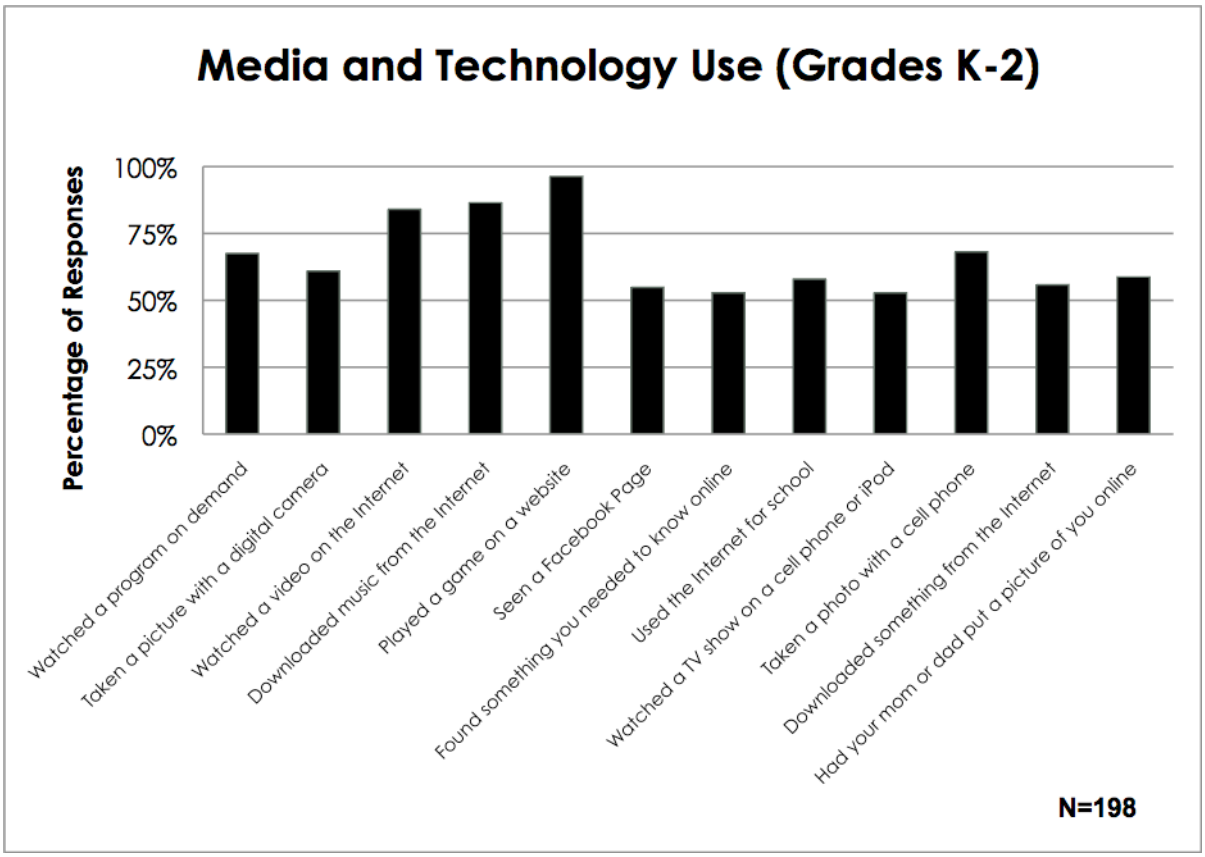
Children are Active Media Consumers and Creators

For many different reasons, some children may rely more on media and technology as sources of entertainment and diversion. Although many children at Wayne Elementary School balance media and technology activities with after-school programs including sports and enrichment activities, nearly one-third of WES students in Grades 3- 5 reported that they are not currently involved in after school enrichment programs.

Kids Have New Ways to Watch Videos, Listen to Music and Play Games. For younger students at Wayne Elementary School (children in Grades K - 2), most media and technology use consists of watching videos, listening to music and playing online games. In Grades 3 – 5, children continue these activities while gaining more experience with YouTube and participating in some social media communities.

Children use media in more places than in previous generations. Among WES children in Grades 3 – 5, 60% have a DVD player or other digital video device in the family car. Young children in Grades K – 2 have had many diverse experiences as new media consumers. They have watched a video on the Internet (83%), downloaded music from the Internet (86%) and played games on a website (96%). Most young children have experienced watching a TV show on a cell phone (52%). More than half report that their parents have already posted a photo of them online (59%). Unlike older students, Table 1 shows that about half (58%) have had experiences searching for information online.

Table 1: *K-2 students can play online, download music, and watch videos on the Internet*



By the time children reach Grade 3, they are watching new forms of television in new ways. Table 2 shows these results. Most have watched TV on the Internet (72%) and YouTube (93%). However, few children are using YouTube as a form of social media. Only one in four children has posted a comment to a YouTube video.

Children are active users of cell phones and mobile devices. Most children have taken a photo with a cell phone (79%), created video footage with a cell phone (55%), played a videogame on a cell phone (72%) or sent a text message using a cell phone (56%). Most have watched TV shows (28%) or played games (72%) on a cell phone.

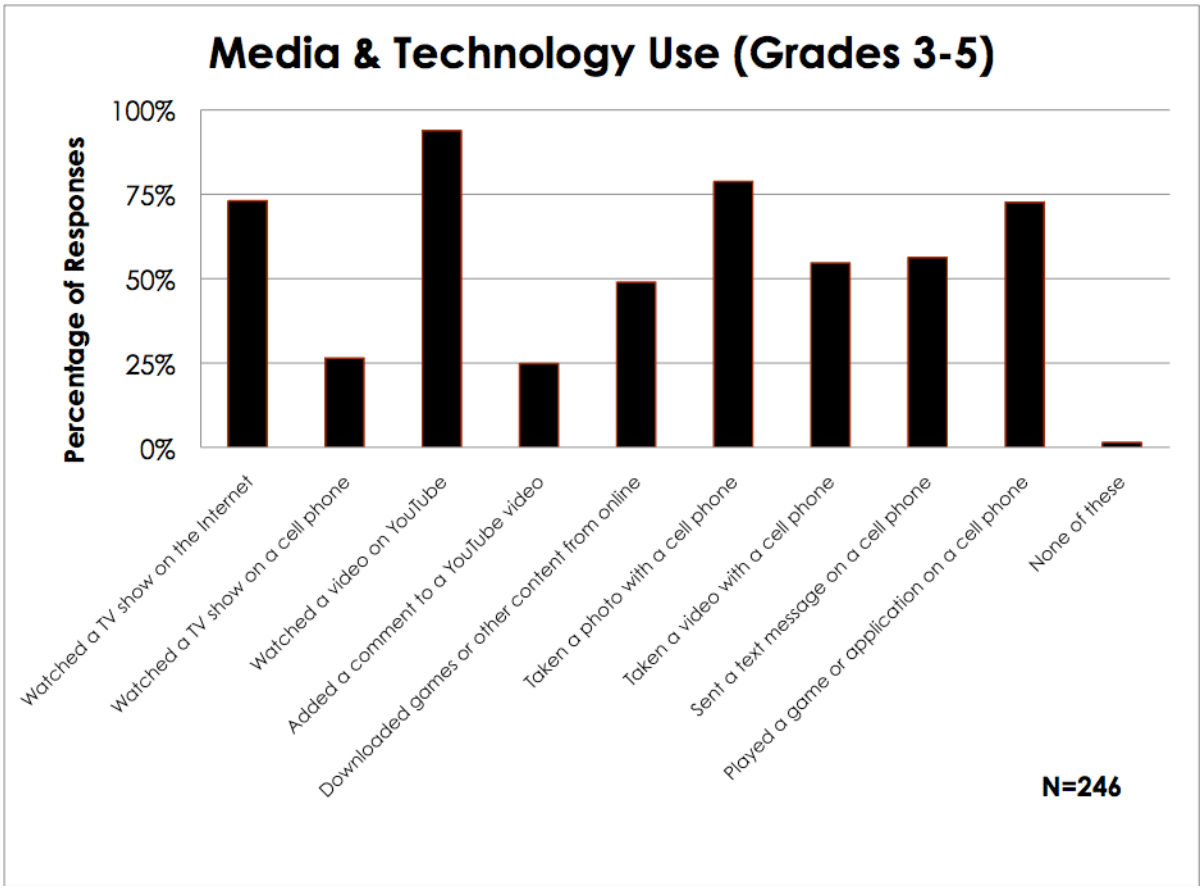
Most Children use Social Media for Kids and Some Have Facebook Profiles. WES children in Grades 3 – 5 are active in using a variety of social media, creating profiles, playing games and interacting with others. We asked children if they had created a profile on various social media websites. Nearly 80% of students in Grades 4 and 5 have a profile on Club Penguin, as compared with 83% of children in Grade 3 who use Webkinz. More than 15% of children in Grade 5 are using Twitter.

Participating in social media is one way to develop a sense of oneself as an author. It enables children to communicate with authentic audiences, including peers and family. By Grade

5, children are acquiring a strong interest in social media like Facebook. The developmental jump is significant. For example, while only 6% of Grade 3 students have visited Facebook, 14% of Grade 4 students have visited Facebook and more that 40% of Grade 5 students have used it.

In fact, more than one-third (35%) of Grade 5 students have a Facebook profile. Children at Wayne Elementary School are not the exception to the norm. A Consumer Report polls indicates that five million American kids under the age of ten are using Facebook (CR Survey, 2011). It is possible that some parents or older siblings are creating Facebook profiles on behalf of their children, as Facebook has an age policy that prohibits access to children under age 13. Government regulations don't prevent children under the age of 13 from joining a social networking site, but site operators are required to obtain verifiable parental consent before collecting, using, or disclosing the child's personal information. Facebook doesn't include this parental verification step; instead, it makes setting up accounts using false birthday information an easy thing to do.

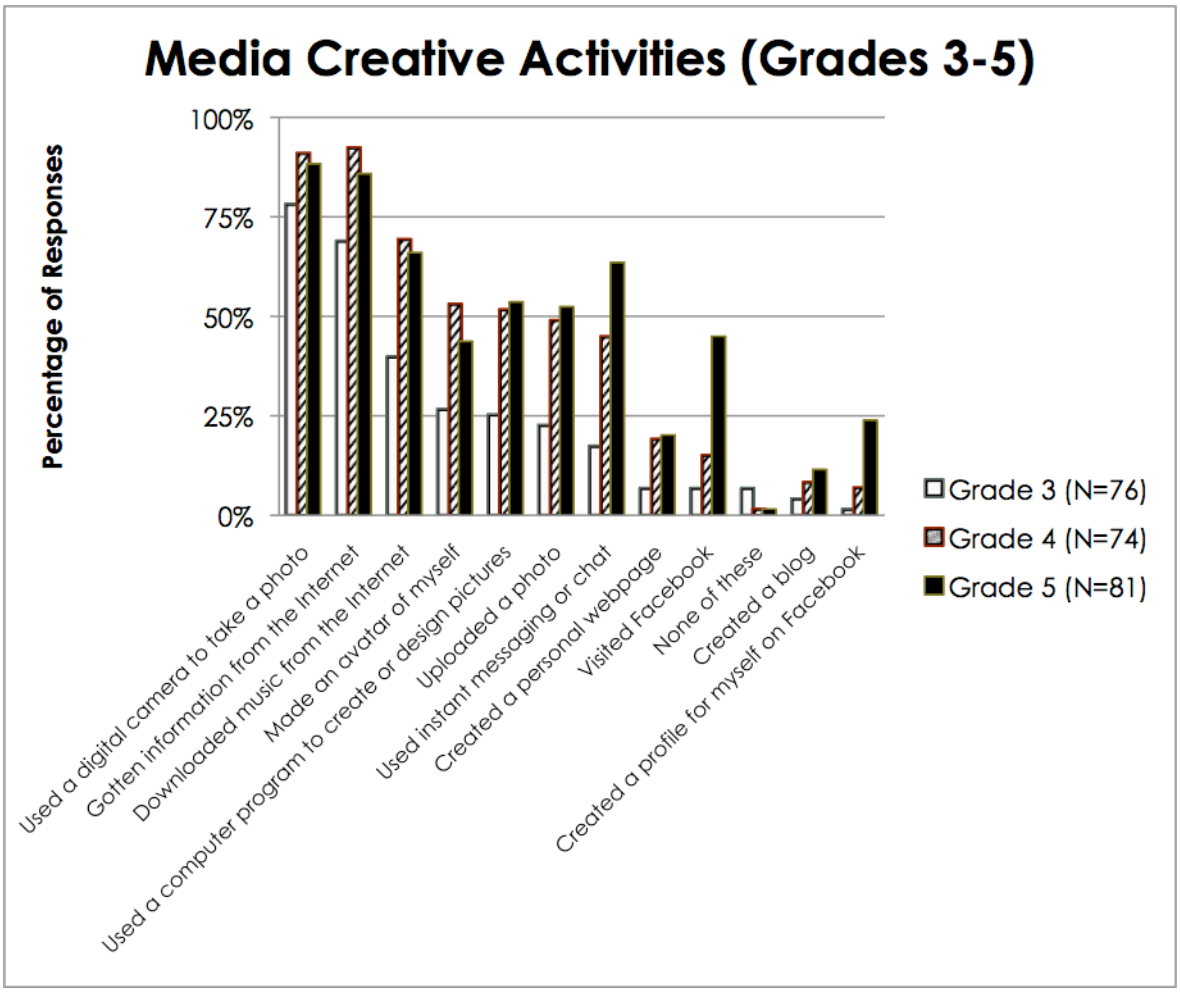
Table 2: *WES students in Grades 3- 5 have watched YouTube videos and Internet video content*



Kids are Creators. Creative activities really begin to take off between Grades 3 and 4. As Table 3 shows, fewer children in Grade 3 are engaging in the creative activities of digital media production as compared with older children in Grades 4 and 5. However, 85% of WES students in Grades 3 – 5 have used a digital camera to take a photo or gotten information from the Internet (81%). Many have downloaded music from the Internet (59%) as well. Nearly half of WES students in Grades 3 – 5 have had experience with image manipulation tools (44%). Many children (42%) have used instant messaging or chat.

But learning to be an author takes time. Children in Grades 3 – 5 are not generally adding content as authors of webpages. We found that only one in five Grade 5 children has created a webpage. And while most have watched a video on YouTube, only one in four children have added a comment.

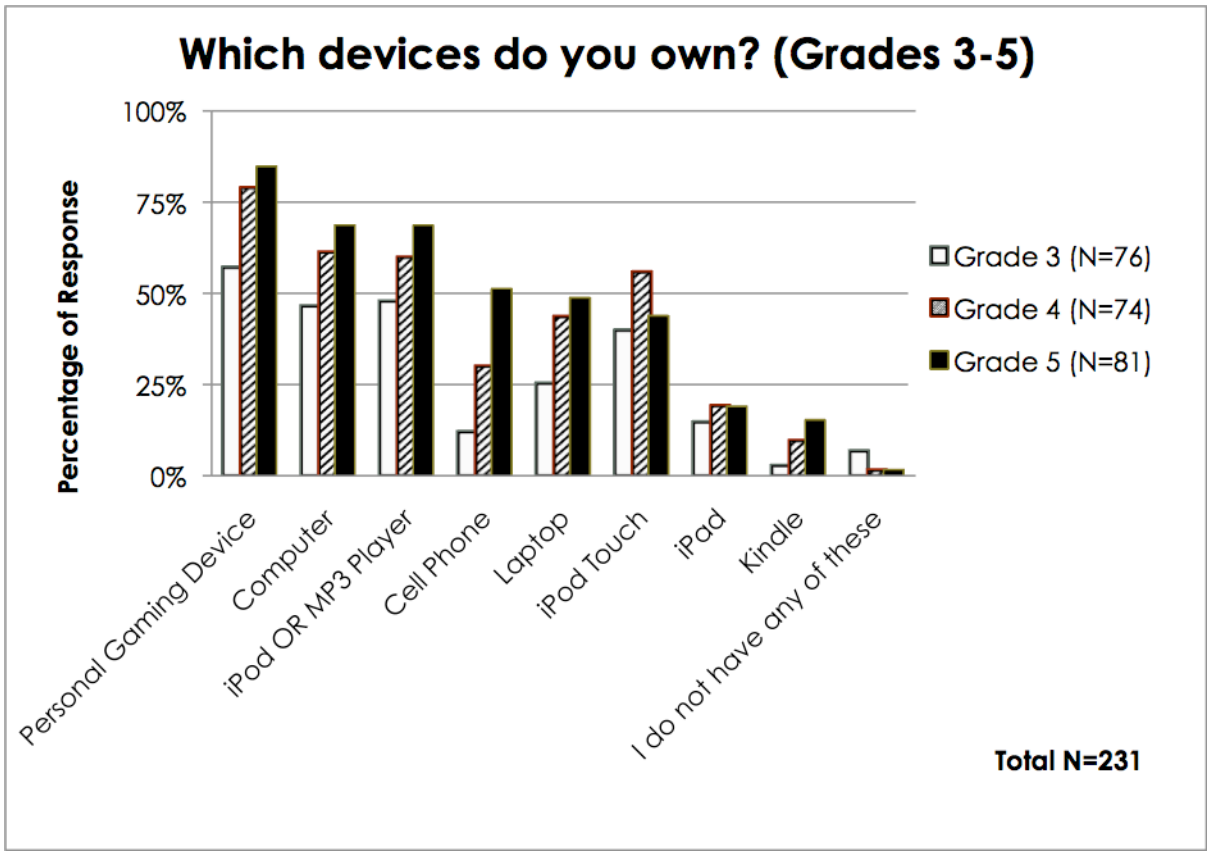
Table 3: *WES students in Grades 3 – 5 use a variety of technologies to create media*



Personal Media Devices are Common. We asked students in Grades 3 – 5 to indicate which devices they own specifically by themselves. We defined *ownership* as the devices that they used almost exclusively by themselves, barely sharing with an adult or sibling. Even if the parent technically owned a device, then a student could indicate ownership if they rarely shared or had to get permission to use the device almost all of the time.

A majority of students at WES own personal gaming devices (73%) and mobile devices such as iPods (60%) and the iPod Touch (46%), as well as personal computers (58%). Table 4 shows these results. By Grade 5, nearly 70% of children have their own computer and 50% have their own laptop. Table 4 shows the breakdown of ownership by grade, although most students across grades indicate similar types of ownership. Cell phone ownership shows particularly dramatic increases between Grade 3 (12%), Grade 4 (28%) and Grade 5 (51%).

Table 4: *WES students own a wide variety of personal gaming devices and computers*



Digital game-playing is a popular activity among children at Wayne Elementary School. Most children enrolled at WES have one or more handheld devices. Boys are more likely to own gaming devices than girls (90% of boys as compared with 67% of girls). But we found that children of all ages enjoy these devices. Many children identified a favorite application (app). For example, 70% of girls and boys said they had a favorite app, with the most frequent replies being *Doodle Jump* or *Angry Birds*.

Children have Celebrity Attachments. Children and families may be more or less engaged with current trends in music, movies and sports. Reflecting their choices as media consumers, WES children are differentially invested in mass media and popular culture, with some being active participants and others not paying much attention to it. We gave children the opportunity to list the names of up to three famous people who were important to them. Among students in Grades 3 – 5, about one in four children (24%) do not have a favorite celebrity, athlete or musician. Fifty-eight percent of students, however, had higher levels of celebrity attachment and named three favorite celebrities. Children identified a total of 520 celebrity names. Musicians comprised 45% of the references (including Selena Gomez, Katy Perry, Eminem and Taylor Swift). Athletes were also quite popular among WES children and represented 26% of the sample (including people like Ryan Howard, Jimmy Rollins and Chase Utley), followed by actors (including people like Miley Cyrus, Johnny Depp, Miranda Cosgrove and Anne Hathaway) who comprised 21% of the sample.

Multitasking is Modest. With all the choice of technologies, it's not surprising that WES students are multitasking. But WES students are not overloading their cognitive abilities while doing homework. For example, children in Grades 3 – 5 report that they are likely to listen to music (26%) while they do their homework, but the vast majority never play video games (77%) or use a cell phone (73%) while they do homework.

Children Live in Media-Rich Homes with Parents who are Actively Involved

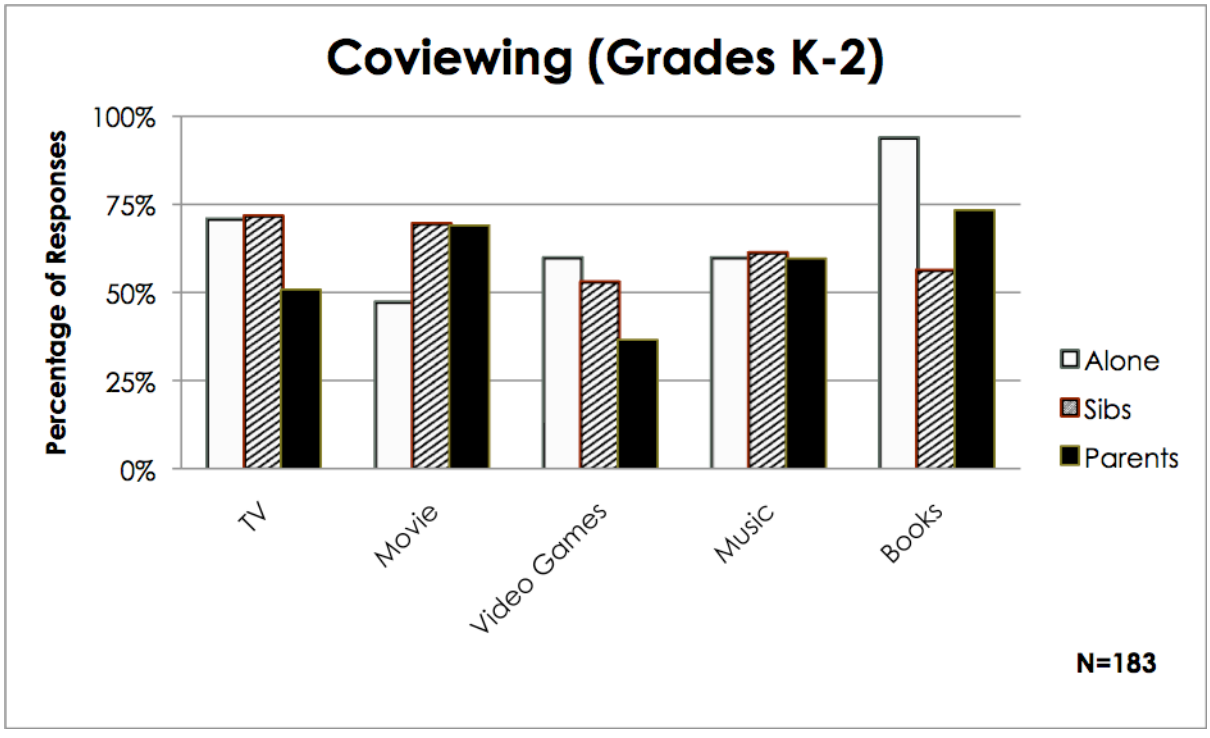
Many Children Live in Constantly Connected Homes. Today's children can access entertainment and information from nearly every part of their house. We asked students about the number of computers, type of computing and the space in which computing occurred in the household. Most children report having 2.5 computers in the house. A little less than half of children (40%) inform us that they live in an always-on, constantly connected home, where they can use the Internet in any room in the house. One in ten WES children uses a computer in their bedroom as their primary location.

Children Spend More Time with Media and Technology on Weekends than on School Days. Most children in Grades 3 – 5 report that they spend less than one hour with television on both weekends and weekdays. During the school week, about 20% of WES children could be called *moderate viewers* and 6% can be identified as *heavy viewers* (more than 3 hours per day) of television. About 9% of children are spending more than one hour per day with videogames during school days. On the weekends, media and technology use is somewhat heavier. About 16% of children spend more than one hour per day playing videogames and 4% spend over 3 hours per day with videogames. On weekends, one in three WES children (32%) could be described as heavy viewers (viewing 1 – 3 hours per day) with 6% viewing more than 3 hours.

Parents Engage in Co-Viewing with Younger Children. Co-viewing experiences with media (in all forms) provide opportunities for caregivers and children to share interpretations of messages, ask questions and use media as a source of family conversation. We asked children in grades K, 1, and 2 about their co-viewing experiences with both their parents and siblings, since these can be powerful forms of socialization. Table 5 shows that students reported high rates of co-viewing for almost every type of mediated experience. Children engage with parents and siblings while watching movies and listening to music. More than two-thirds of children in all grades report that they are often in the presence of parents (or sometimes siblings) as they interact with their favorite media.

Co-Viewing is More Common for Television, Music and Books, but Not Videogames, Newspapers, Magazines or Audiobooks. In busy families, it is to be expected that co-viewing will not be a routine experience for children and that much media consumption will occur with siblings or alone. We asked students to indicate if they did various forms of co-viewing *a lot, sometimes* or *never*. Co-viewing of movies and television programs is the most common activity among WES families (about 30% said they watch with parents *a lot*). That can be compared to only about 10% of children who indicate that they use the Internet with their parents a lot. About 65% of children indicate that they sometimes listen to music with their parents. Nearly 75% children report that their parents are *sometimes* or *often* co-reading books with them.

Table 5: *WES students in Grades K – 2 engage in co-viewing with parents and siblings*



Other types of media and technology are less likely to be used for co-viewing. For example, while most children report that parents sometimes use the Internet with them (74%), more than half (53%) of children report that their parents *never* co-play videogames with them. Parents are even less likely to engage with children in co-use activities involving newspapers and

magazines. As Table 6 shows, only about 24% of children report that newspapers and magazines are *sometimes* used as a source of parent-child interaction. More than 80% of WES children report that audiobooks are *never* used as a co-listening experience. (However, since we used the term, "books on tape," it is possible that some children did not interpret this question as we intended.)

Table 6: *WES children in Grades 3 – 5 are far more likely to co-view movies and TV shows with their parents than other media forms*

	Never	Sometimes or A Lot
I listen to books on tape with my parents or guardian.	81%	19%
I read newspapers with my parents or guardian.	74%	26%
I read magazines with my parents or guardian.	58%	42%
I play videogames with my parents or guardian.	48%	52%
I watch TV news with my parents or guardian.	26%	74%
I read books with my parents or guardian.	25%	75%
I use the Internet with my parents or guardian.	23%	77%
I listen to music with my parents or guardian.	23%	77%
I watch movies and TV shows with my parents or guardian.	4%	96%

N = 238

Children Respect Parental Authority and Expertise. The common understanding of "digital natives" refers to the idea that children have more competence with technology than their parents and caregivers. To explore this issue, we asked students about their perceptions of their parent's knowledge of the Internet. Table 7 shows that children perceive their caregivers to be clear authority figures when it comes to the Internet and information technologies. Almost 80% of students *disagreed* with the statement, "My parents don't understand computers and the Internet very well." Over 70% of students *agreed* with the statement, "My parents know what I do online," demonstrating the students' awareness of their parents' role in monitoring their online behavior. As Table 7 shows, children are less confident in generalizing about the knowledge and skills of their friends' parents. Only a small percentage of WES students in Grades 3 – 5 see themselves as having more expertise with the Internet than their own parents.

Table 7: *Students are aware of parental monitoring of online behavior and see parents as knowledgeable (Grades 3 – 5)*

	Agree
My parents know what I do online	74%
My parents know a lot about computers and the Internet	50%
My friends' parents know what their kids do online	31%
My friends' parents know a lot about computers and the Internet	25%
I am much better with computers and the Internet than my parents	26%
My parents don't understand computers and the Internet very well.	10%

N = 238

Children are Aware of Parental Guidelines and Expectations for Media and Technology but Enforcement of Rules Varies Widely. Families seem highly attentive to communicating their expectations for the appropriate use of the Internet. Most children (60%) in the WES community stated that they had rules and expectations about *how much time* they could spend with media and technology.

In many families, *rules about appropriate content* are common as children were aware of parental guidelines for the type of appropriate content on the Internet (76%), establishing a profile on Facebook (76%), appropriate TV shows (60%), and acceptable videogames (56%) children are permitted to view. However, WES families do not establish guidelines and expectations for/with the use of popular music. Most children (83%) can listen to as much music as they like and only four in ten children state that parents set expectations for the content or type of popular music they can listen to.

Although they communicate the rules to their children, parents may or may not place a lot of emphasis on *enforcement* of rules for viewing time and content when it comes to mass media, popular culture and digital media. Only about 37% of WES children in Grades 3 – 5 report that parents make sure they follow the rules about using media *most of the time*. By contrast, about 30% of children live in families where rules about media and technology are just not a big deal, stating that rules are enforced *a little* or *never*.

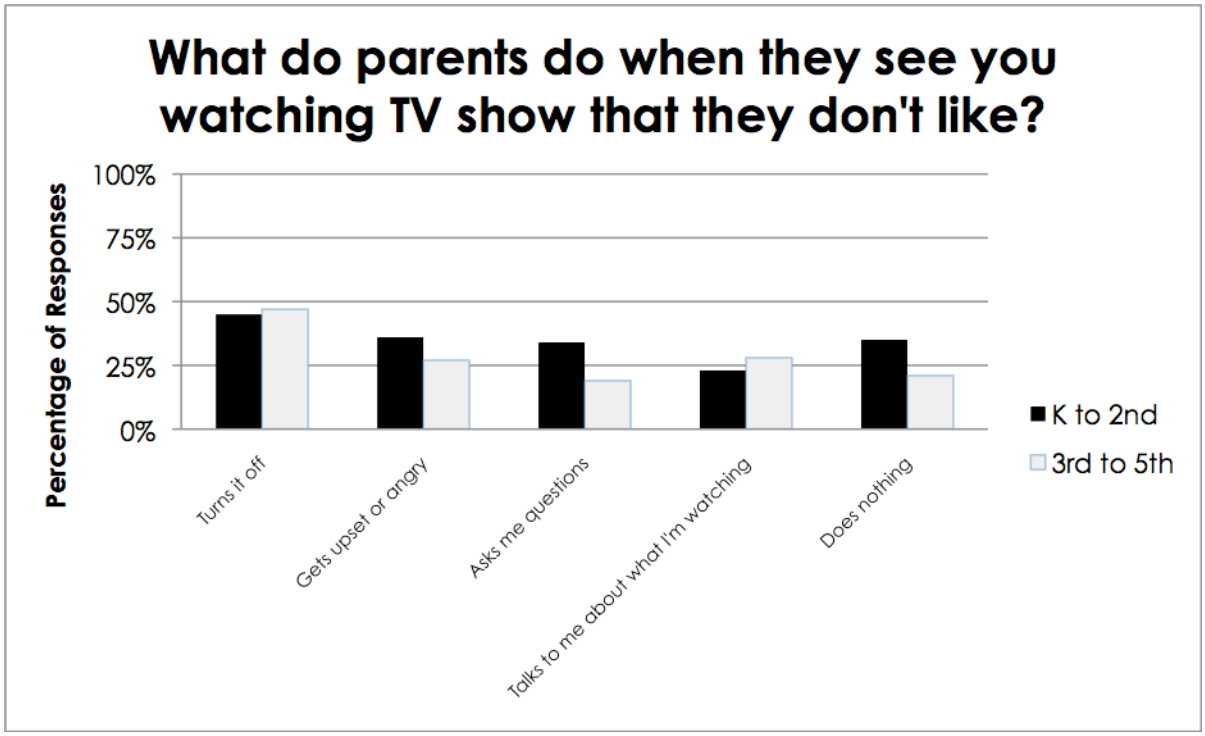
Children Have Had Experiences with Inappropriate Media Content. Most WES children (70%) in Grades 3 – 5 report that they have had experiences with TV shows or movies "that your parents wouldn't want you to see." Movies like *Twilight, Sex in the City,* and the *Scream series*. Children have watched a number of programs featured on Cartoon Network's Adult Swim programming block, which features animated programs targeted at teenagers and young adults. About 17% of children have had experiences using videogames that they believe their parents wouldn't want them to use, with titles including *Grand Theft Auto, Halo,* and *Call of Duty*.

About one in four children in Grades 3 – 5 reported having viewed a scary movie (with titles including *Scream, War of the Worlds, Twilight, The Shining,* and *The Sixth Sense*). When we asked children to describe their feelings after viewing, children shared a range of responses. Most felt "creeped out," "terrified," "nervous," "ashamed," or "stunned." Several noted that the viewing experience affected their sleep patterns.

Parents Respond to Inappropriate Media Use. How parents respond when children experience inappropriate content is important, as it represents an opportunity to discuss various interpretations of media messages in light of family values. Parents can respond in many different ways. When we asked children about TV and videogames that their parents didn't like, they mentioned that parents were likely to turn it off, get angry, ask questions, talk with them, or do nothing. Using these items, we asked students about their caregivers' most common reaction when they view inappropriate content. Table 8 shows that about half of WES students report that parents' most common reaction to inappropriate content is to *turn it off*. About one in three WES children report that parents do nothing in response to inappropriate content.

Among K-2 students, 36% said that their parents *get angry*, while only 27% of Grade 3-5 students noted this response. Caregivers express a range of reactions to inappropriate content, but they are least likely to *ask questions* of older children (19%) as compared with younger children (36%). Only one in four WES children in Grades K – 2 report that parents *talk with children* (23%) about inappropriate content, but this rises slightly to 28% among children in Grades 3 – 5.

Table 8: *Parents are more likely to turn off inappropriate media rather than talk or ask questions*



Children Enjoy having Opportunities to Use Technology at School but they Experience Stresses Associated with Interacting with Peers Online

Most Students Enjoy Using the Internet in School but Some Children are Unsatisfied. Students were asked about their feelings toward using the Internet and other technology at school. Most children in Grades 3 – 5 (63%) like using the Internet at school and see it as an enjoyable part of their learning experience. Of the students who said that they were *not sure* (28%) or *no* (8%), we gave them option to elaborate. Among the 70 children who answered this question, 46% said they don't like the Internet at school because the activities and content are not engaging, and 41% said that technical difficulties interfere with technology use. We attempted to examine children's experience with FlipCams in the classroom but the non-response rate for this item was very high. Seventy children (one classroom in Grades 3 – 5) answered this question. Two-thirds report that they have never seen their teachers use a portable video camera. One in three children reports that the FlipCams are used *once in while*.

Some Children Have Experiences with Bullying that may be Associated with Psychological Adjustment. Interviews with parents, students and teachers revealed some concerns about the quality of online peer interaction among children in Grades 3 – 5.
To understand the relationship between online bullying and children's overall life experience, we asked a series of items about children's psychological adjustment. Positive items included: *I have a lot of friends, I get along well with my parents,* and *I have been happy at school this year.* Negative items included: *I am often bored at school, I often feel sad and unhappy*, and *I get into trouble a lot.* Table 9 shows these results.

Table 9: *Students in Grades 3 – 5 are mostly well-adjusted*

	Agree	Not Sure or Disagree
I have a lot of friends	91%	9%
I get along well with my parents	82%	18%
I have been happy at school this year.	71%	29%
I am often bored at school.	31%	69%
I often feel sad and unhappy.	11%	89%
I get into trouble a lot.	8%	92%

N = 242

We also asked children to tell us if they have had any experiences with "being mean" or "others being mean to you" while in online social interaction. As Table 9 shows, children are more likely to experience this, as both victims and perpetrators, as they grow older. In about half of the cases, children indicated that they knew the perpetrator. As Table 10 shows, Grade 5 children, in particular, experience a significant jump in this behavior. One in three Grade 5 students report having been a victim of some form of online bullying.

Table 10: *WES Students in Grades 3 – 5 have had some exposure to bullying*

	Grade 3	Grade 4	Grade 5
Has anyone ever been mean to you while you were online?	7%	10%	36%
Have you ever been mean to someone while you were online?	1%	1%	9%

N= 238

Summary and Recommendations

WES students come from media-rich and technology-intensive home environments and are active consumers and creators of mass media, popular culture and digital media. Parents in this community take great care to support their children's involvement in a balance of activities apart from media use, including sports, religious education, arts and other forms of enrichment, but one-third of children did not list afterschool or weekend enrichment activities.

While about one in four students are not actively participating in consuming mass media and popular culture, most are active using a variety of devices and media genres. Caregivers and children do spend time together co-viewing their favorite movies and TV shows. They listen to music and explore the Internet together but are less likely to co-play videogames or read the newspaper or look at magazines together. While most families have communicated their expectations about appropriate media and technology use, the actual enforcement of rules varies from household to household. In school, most children enjoy using the Internet and the SmartBoard, but some feel the activities are not as engaging as they should be or perceive the equipment to be broken or nonfunctional. Although most children are well-adjusted and have not experienced online bullying, it is a problem that begins in in Grade 4 and intensifies in Grade 5. Appendix B provides a short list of resources for children, parents, and teachers to learn more about media literacy.

Recommendations for Parents

These recommendations are based on the results of this study and our review of the extensive literature on parental mediation and media literacy.

Enforce rules and expectations about appropriate media and technology use. Parents are justified in establishing rules and expectations about how much time and what type of content are appropriate for their children. There is no one right answer to how much media (or what type) is best for every family. Different families will set different expectations in light of their own lifestyles and values. But expectations and guidelines for how much time is spent watching TV, playing videogames or using the Internet are meaningless – unless there are consequences when the rules are violated.

Participate in active co-viewing and co-playing with children and ask questions that stimulate expression and thinking. It is inevitable that children will experience exposure to inappropriate content. Rather than get angry or ask children to "turn it off," it's more useful to sit down and co-view a movie or TV show or co-play an online game or videogame with children. Increasing involvement in children's media worlds helps parents understand how children are interpreting the embedded messages. We suggest using the five key questions of media literacy (Table 11) that revolve around the idea that *all media messages are constructed.* Parents can use these questions as a guide or platform to engage their children's critical thinking while watching their favorite TV show or movie, listening to songs on the radio, or even reading a book. Parents should help students to internalize the critical questions of media literacy as a form of "driver's training" for living in a media- and technology-saturated society.

Table 11: *Ask questions about media and technology messages to promote critical thinking*

Critical Questions of Media Literacy	
1.	Who is the author and what is the purpose?
2.	What techniques are used to attract your attention?
3.	What lifestyles, values, and points of view are represented?
4.	How might different people interpret the message differently?
5.	What is omitted from the message?

Children can learn to think critically and meaningfully about the mass media, popular culture and digital media that are a part of their everyday lives. Using texts that are relevant, interesting, and connected to kids' lived experiences supports the development of listening, reasoning and speaking skills.

Recommendations for Teachers

Bring conversations about media and popular culture into the classroom and use "viewing and discussion" media homework to deepen the quality of parent-child interaction. Teachers and school leaders cannot afford to ignore the role of mass media, popular culture and digital media in the lives of children. Children are learning a wide range of positive (and negative) life lessons from their favorite celebrities, athletes and musicians. It is important to develop skills needed to critically analyze advertising to recognize how persuasion works; to examine how stereotypes in storytelling affect our understanding of heroes, villains and victims; and to learn about news and current events and the role of journalism in helping citizens make informed decisions. Since most of children's use of mass media and popular culture occurs at home, teachers can use "viewing and discussion" type homework and other activities to build bridges between home and school. These activities may take advantage of children's interests and pleasures while simultaneously building reading, writing, research, critical thinking, speaking and listening skills that support the habits of mind associated with lifelong learners.

Support children's development as both authors and audiences. With the proliferation of camera phones, YouTube, and other social networking sites, people are no longer simply consumers of media. Today, being a skillful communicator involves skills like interviewing, listening and public speaking. Being a writer involves the ability to manipulate words and sentences into paragraphs and to use images, graphic design and other technology tools to express and share ideas. As this study has shown, a wide range of technology tools are in the hands of children already; these should be viewed as opportunities for children to exercise their powerful voices, not just as toys for diversion and distraction.

Develop a shared vision regarding the role of digital and media literacy at Wayne Elementary School by identifying teachers' needs regarding the use of media and technology in the classroom. Evidence from this study showed that some teachers may benefit from the chance to develop new knowledge and skills regarding the use of media and technology in the classroom. To develop appropriately targeted forms of professional development, a comprehensive skills assessment combined with personal goal setting may be useful to develop a shared vision regarding the development of a scope and sequence that brings digital and media literacy to all children at Wayne Elementary School.

Take advantage of opportunities for peer-to-peer learning with technology. This study showed that children at Wayne Elementary School have a lot of skills and, more generally, the habits of mind associated with learning to use new technologies. This usually involves a form of trial-and-error that has been described as "messing around" (Ito et al., 2009). For both students and teachers, people who have skills can support people who need to develop skills.

Recommendations for the Community

Reduce bullying and exposure to inappropriate media content by creating safe and respectful spaces for children to express their feelings, thoughts and ideas. A culture of silence about children's exposure to inappropriate content will not address the real challenges associated with growing up in a media age, where the click of a mouse can take children to an encyclopedia article, a porn site or a hate group. The 500+ channel universe available via cable and satellite television makes it more and more challenging for parents to protect children from the worst aspects of contemporary media culture, including hyperviolence as entertainment, hucksterism and materialism, fear-inducing local news, sexuality and coarse language, as well as disturbing racial, gender and ethnic stereotypes. When children are exposed to these messages, they need a chance to share their feelings and hear from adults who can provide important context and background to make sense of the complex and often mystifying adult world.

Unfortunately, there is quite a bit of fear-mongering and hysteria about cyberbullying that is not helpful in establishing the kind of trusting and safe spaces that children need to reflect on their social responsibility to others. We recommend that children in Grades 3 – 5 get creative media production opportunities like the one developed by library/media specialist Sue Dahlstrom for students in Grade 4. Children discussed the problem of cyberbullying. They wrote scripts and created skits to explore problematic issues like sharing passwords and being mean via text messaging. After videotaping their performances, students reviewed the footage. They began to see their work in a more serious light.

One student explained her work on this project by saying:

> "Our message was to say that cyberbullying or regular bullying are the same thing. The audience is third graders becoming fourth graders. We chose this audience because as you get older, you might bully someone younger than you. The purpose was to inform that bullying is not good at all. If you see someone being bullied, you should tell the person to stop and tell a teacher. We all want them to know that you should not bully—you have to stop it or it will continue. Don't make it funny—cause it's not a funny subject. It's not something to laugh about. When I acted as the bully in the show, I didn't like the way it felt. This project helped us understand that."

Children can learn social responsibility by exercising their powerful voices through the use of media and digital technology tools as forms of creative expression. Developing the capacity to be authors in a multimedia landscape is becoming an essential life skill. This report helps adults who care for children need to have a better understanding of the increasingly complex media and technology experiences that children have as audiences and authors, both in and out of school.

Appendix A

Research Methodology

The Media Education Lab surveyed a total of 454 students both in focus group format (*N*= 198, 48% male) for kindergarten and Grades 1 – 2, and online (*N*= 256, 48% male) with Grades 3 – 5. We received parental consent from 97% of the WES student community. Data was collected in April of 2011 in the school library.

Understanding the Community's Values. We spent the first few weeks at WES interviewing parents (4 females), teachers (5 females, 2 males) and students (3 males, 5 females; ages 9-11). Adult participants were asked about their interactions with media, technology and children, so the researchers could better understand the relevant questions and concerns of the adult community. Child participants were asked about their media and technology preferences and habits. Pilot interviews helped us to design the survey instrument to meet the needs of the WES community.

Item Development. The data from the interviews, along with our knowledge of current research on children and media, was used to generate a list of variables that would be measured. The variables we measured were (1) ownership/usage in the family context (2) usage, (3) social media use, (4) perceptions of parents' technology skills, (5) parent mediation, (6) co-viewing practices, (7) media preferences, (8) awareness of inappropriate content, (9) cyber-bullying, (10) perceptions of media and technology use in the classroom, (11) social adjustment and mood, and (12) demographics. The variable list was used to develop an online survey (via Survey Monkey) for students in grades 3 through 5, and focus group questions for kindergarten, first and second grade students. We pilot tested the questions with a small group of children to ensure that questions were understandable and clear.

Research Process, Grades K – 2. Children in grades K through 2 (*N*=198, 45% male) were surveyed in focus groups during their library instruction time. Students who returned consent forms were seated at their instruction tables. Students who did not participate took their regular library instruction. The participants were asked to keep their heads down (or eyes closed) and raise their hands if they answered "yes" to a series of questions. After a few questions, students were given a break. Then, after 15 minutes of questions in focus groups, students were split into smaller groups and asked more specific questions about their media and technology preferences.

Research Process, Grades 3 – 5. During their library instruction period, each third, fourth and fifth grade student (*N*= 256, 48% male) took the survey during their library period in their classroom individually on a laptop computer. Surveys were administered in a group setting, and students were asked not to speak with each other while taking the survey. The students who did not participate were taken to the library for their customary activities. Participants received a four-digit identification number so their responses could be tracked anonymously. They were asked to silently raise their hand if they had a question about the wording of a question. Students with special needs were assisted by their teachers to answer the survey individually. The survey took students about 30 minutes to complete.

Appendix B

Recommended Resources

For Children

Admongo
http://admongo.gov
Created by the U.S. Federal Trade Commission, this online game for children ages 7 – 11 helps them recognize and understand advertising in the contemporary environment.

My Pop Studio
http://mypopstudio.com
This online game for girls ages 9 – 14 introduces key media literacy concepts through creative play activities with music, movies, magazines and digital media.

For Parents

Common Sense Media
URL: http://www.commonsensemedia.org
Common Sense Media is a non-profit organization dedicated to information sharing and advocacy for children in our highly mediated world. They provide myriad resources for caregivers, educators and children as they navigate all media formats.

The Joan Ganz Cooney Center at Sesame Workshop
URL: http://www.joanganzcooneycenter.org
Named for one of the founders of *Sesame Street*, the Cooney Center is dedicated to research and understanding about the benefits of digital media. The link about features two recent reports, "Families Matter" and "Always Connected" that provide relevant research and insightful recommendations for caregivers raising children in the digital age.

For Teachers

Media Literacy Clearinghouse
URL: http://www.frankwbaker.com/
The Clearinghouse offers a well-vetted list of curriculum resources for teachers in a site designed to help educators integrate digital and media literacy standards in K-12 curriculum areas including English language arts, social studies, health, science and library/media.

National Association for Media Literacy Education
URL: http://namle.net/
The national membership organization for media literacy education in the United States, the website showcases the work of media literacy educators in K-12, higher education and in non-profit organizations.

Assignment: Media Literacy (Elementary)
http://www.mediaeducationlab.com/assignment-media-literacy
This curriculum developed by Renee Hobbs in conjunction with the Maryland Department of Education and the Discovery Channel offers a comprehensive approach to introduce media literacy to K-6 students.

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