

1 Digital and Media Literacy

In this chapter, you'll learn about

Digital and Media Literacy

- What is digital and media literacy?
- Why should we expand the concept of literacy to acknowledge the worlds of print, visual, audio, and interactive media in the elementary grades?

Technology Integration

- Why does technology integration support learning?
- How may it distract from meaningful learning practices in the classroom?

Bridging Classroom and Culture

- How can teachers use digital and media literacy to engage students' interests and passions, and develop knowledge, competencies, and skills?

It was lunchtime, and Ms. Dominguez's second-grade students had just finished eating. A few minutes remained for table talk before recess. Three girls had opened up their black-and-white composition notebooks and were pretending to use a laptop, tapping their fingers on the pages.

One little girl, Natalia, had propped up her composition notebook against her milk carton so that the top half of the page displayed a "screen" of sorts. Here, she had written the word "Facebook" and had sketched a close-up picture of herself. On the lower page of the notebook, she had drawn a keyboard, complete with small square boxes to represent keys, including the alphabet, space bar, return, shift, and enter keys.

Giving each other knowing glances around the lunch table, Natalia and the other girls were "typing" on their composition notebooks, pretending to be working on their laptops. As Ms. Dominguez surveyed her classroom, she took note of this activity, smiling to herself because, unbeknownst to the children, she also had briefly checked her own Facebook page using her cell phone at the teacher's desk while eating her lunch that day.

GROWING UP WITH MEDIA AND TECHNOLOGY

All of us, children and adults alike, are growing up with more access to media and technology than at any point in human history. Well before they enter kindergarten, young children spend many hours with screen media. About half of all babies and toddlers under the age of two watch 2 hours of television per day. In 2011, a national survey showed that nearly one in three babies and toddlers has a TV in his or her bedroom, up from 19% just 6 years earlier.¹

Although TV viewing is the most frequent screen activity of childhood, one fourth of young children's screen time now includes the use of computers, handheld and console video game players, and other interactive mobile devices such as cell phones, iPods, and iPad-style tablet devices.² Natalia, her mom, and her sister Sara like playing Angry Birds on the family cell phone or checking out what their other family members are posting on Facebook and Twitter.

More than half of all 5- to 8-year-olds have used an app (an application) on a mobile device of some sort, researchers tell us. And for Natalia, as with many young children, video game and computer use is a part of daily life, with one in five using a video game or a computer every day. Most children who use video games or computers begin when they are just 3½ years old.³

In her home in West Philadelphia, Natalia is among the 75% of children under the age of 8 who don't often watch educational television

programs like *Sesame Street* or *Between the Lions* on PBS. Instead, she enjoys the Toonzai block on Channel 57, the CW network in Philadelphia, which airs imported Japanese anime shows like *Yu-Gi-Oh!* and *Dragon Ball Z Kai*. Natalia's family is among the 50% of low-income families who do not have access to cable or satellite television programming. In her house, the TV is on most of the time, even when no one is watching.

Because Natalia's mom works a lot, she doesn't get much opportunity for what is sometimes called *co-viewing* or *joint media engagement*, where parents or caregivers help support the use of TV shows, movies, video games, or the Internet explicitly as a tool for children's learning.⁴ Natalia and her mom, Joyce, do watch "regular" television together, including *Good Morning America*, *Entertainment Tonight*, and *American Idol*, but generally this time together is a place of relaxation and escape. Neither Natalia nor her mom perceive it as a time for learning.

We still know relatively little about how digital technology and entertainment media make a positive contribution to children's understanding of the political and social world.⁵ By watching TV and movies, Natalia has learned much about the world around her: She's familiar with different types of family structures, recognizes the president, and knows about the types of jobs done by people in hospitals and in law enforcement. The many stories Natalia watches also shape her understanding of social relationships, including both *prosocial* behaviors like kindness, generosity, and helping others and *antisocial* behaviors like aggression, lying, and being mean to others.

Today, Natalia's mom and her teachers aren't thinking much about children's TV time; they're far more concerned about children's use of the Internet and social media. Right now, we're in a paradigm shift where all of us—young and old—are learning to adapt to rapid changes in media and communication technology.

When teachers like Ms. Dominguez notice the ways in which social media, popular culture, and digital media enter the lives of their students, they may have a sense of both the promise and the possibility but also the profound ways that these things may complicate classroom life. How could Ms. Dominguez use her own knowledge of social networks—and her students' developing knowledge of how computers, laptops, and mobile devices work—in a way that somehow connects a rich digital media culture to the everyday business of teaching her students how to better understand and communicate in the world around them?

LEARNING, LITERACY, AND LIFE

Education supports the development of the whole human being: the head, the heart, and the spirit. As children grow and develop, they transform basic

sensory experiences into thoughts, feelings, and ideas, gradually moving from simple reactions toward more complex and nuanced responses, translating experience into “a model of the world” through actions, images, and, finally, symbolic representation.⁶ Through active engagement with the process of meaning-making, children develop their identities as literate, social, emotional, and moral individuals.

What does it mean to be literate? For most of human history, to be literate meant to be effective as a speaker and a listener. The concept of *rhetoric* emerged more than 2,500 years ago as people discovered that certain ways of talking were more effective and powerful in achieving social power and influence. When the Gutenberg revolution brought printed books to a mass audience, the concept of literacy expanded to include the skills of reading and writing, which required many years of practice to master fully.

Today, people need to be able to “read” and “write” messages using symbols in a variety of forms. Each genre and medium of expression and communication demands certain learned competencies. For example, reading on screen, reading from a page, writing with a keyboard, and writing with a pencil are all practices that require particular skills. In this book, we’ll show how mass media, social media, popular culture, and digital media texts can be used to support the development of children’s reading, writing, speaking, listening, and communication skill development.

Talking About Popular Culture Builds Listening Comprehension

Children’s talk about popular culture and mass media is deeply tied to language development, comprehension, and expressive skills. For example, in hands-on work with media literacy in over 60 elementary schools in England, scholars found that film viewing and discussion activities promote high levels of talking and sharing in extended discourse. While watching, young children listen closely and are able to comprehend narratives and notice details about dialogue and music, plot, setting, and character.⁷

When children learn how to apply concepts like audience, message, purpose, and point of view to both familiar media (like TV shows and music) and unfamiliar media (like nonfiction textbooks and news articles), they strengthen their critical reading strategies.

Many children who are just learning to decode and comprehend print texts can demonstrate complex reasoning and sophisticated thinking skills

using familiar visual or digital materials. Especially for those children who have become disengaged and alienated from school, getting a chance to display one's funds of knowledge and reasoning skills with mass media, popular culture, and digital media activities enables children to bring their at-home media and technology experiences into the classroom. Not only are such practices engaging and motivating to young learners, but such connections are also at the heart of what real learning is all about.

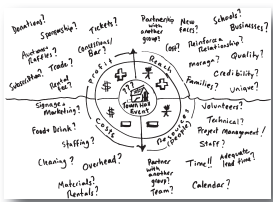
Today, many communication competencies are needed to be effective in society. Digital and media literacy includes the ability to access, analyze, compose, reflect, and take action in the world. It's a broad and expansive array of life skills. We think it's absolutely essential for elementary educators to help strengthen children's self-expression and advocacy, reasoning, critical thinking, and communication skills. Social development, self-confidence, conflict-resolution skills, and sensitivity to the social responsibilities of using 21st century technologies are habits of mind that enable children to thrive. The following list outlines the kind of competencies that are increasingly valued both inside and outside the classroom.

POWERFUL VOICES FOR KIDS: DIGITAL AND MEDIA LITERACY COMPETENCIES



Access

- ✓ Listening skills
- ✓ Reading comprehension
- ✓ Using appropriate technology tools
- ✓ Asking questions
- ✓ Gathering information using multiple sources
- ✓ Applying information to solve a problem



Analysis

- ✓ Understanding how symbols work and how they are used
- ✓ Recognizing particular types (genres) of messages
- ✓ Identifying authorship, message purpose, and target audience with a variety of texts
- ✓ Recognizing evidence of quality and credibility in different types of messages



Composition

- ✓ Speaking to an individual and demonstrating listening skills
- ✓ Speaking to a large group and responding to feedback
- ✓ Communicating a personal reaction and expressing a point of view
- ✓ Selecting messages and texts to use, respond to, remix, and combine in a creative way
- ✓ Composing, writing, and creating images to inform, persuade, and entertain
- ✓ Composing in a variety of formats, including emails, reviews, reports, film scripts, music lyrics, web pages, nonfiction, fiction, and other literary genres
- ✓ Composing for a variety of audiences, including peers, family members, educators, special interest groups, government leaders, and members of the general public



Reflection

- ✓ Recognizing and valuing relationships and engaging in socially appropriate behavior
- ✓ Brainstorming and contributing ideas
- ✓ Staying on task and following directions
- ✓ Using good judgment and social responsibility when communicating with others
- ✓ Exercising leadership, integrity, and accountability
- ✓ Offering feedback to, helping, and teaching others



Taking Action

- ✓ Participating in a creative community
- ✓ Sharing and expressing ideas with others
- ✓ Being aware of and sensitive to differences among people
- ✓ Making connections between current events, the community, and the self
- ✓ Generating ideas in order to improve a thing or an event
- ✓ Collaborating on solving a meaningful real-world problem

These are precisely the competencies and skills that make people effective in both classroom and society. These are also the skills that employers seek out in the workforce. Young children between the ages of 5 to 11 can also demonstrate these competencies and skills. How?

First, children need the chance to ask questions about what they watch, listen to, see, and read. Second, children need opportunities to develop creative and collaborative skills using a variety of symbol systems to communicate, including language, images, sound, and multimedia. In an increasingly complex global environment, people need habits of mind that “involve new levels of communication, shared vision, collective intelligence, and direct coherent action.”⁸

How Has Literacy Changed?

The concept of literacy is not fixed and static. It’s based on the changing needs of people in a society. Today we recognize that literacy is not just reading and writing. In this book, you’ll find teachers who are strengthening both the “old literacies” and the “new literacies” nearly simultaneously.

Rhetoric	Speaking and listening
Print Literacy	Reading and writing
Visual Literacy	Image design, interpretation, and creative composition
Information Literacy	Information access, retrieval, evaluation, and usage
Media Literacy	Analyzing messages from media and popular culture and composing with technology tools
Critical Literacy	Recognizing and resisting power relationships in messages and information
Computer Literacy	Understanding and using computer technologies effectively
News Literacy	Understanding and evaluating news and current events
Digital Literacy	Being a socially responsible user of the Internet and social media

TECHNOLOGY INTEGRATION IN THE ELEMENTARY GRADES

As we write this book, we are concerned about the possibility that the current approach to the use of digital media and technology in education may

inadvertently widen the inequality gap in our society. In some American elementary schools, there are well-stocked school libraries, gleaming interactive whiteboards, video monitors, data projectors, classroom computers, and well-maintained computer labs, all supported by capable technology staff and helpful school librarians. In other elementary schools, however, especially in urban and rural schools, technology resources are often outdated, poorly maintained, and underused. In some cases, they are simply unavailable.

Unfortunately, many American elementary schools lack a full-time school librarian or technology specialist. In general, elementary schools have been the lowest priority for technology integration in school districts large and small. High schools get the lion's share of technology resources, followed by middle schools.⁹

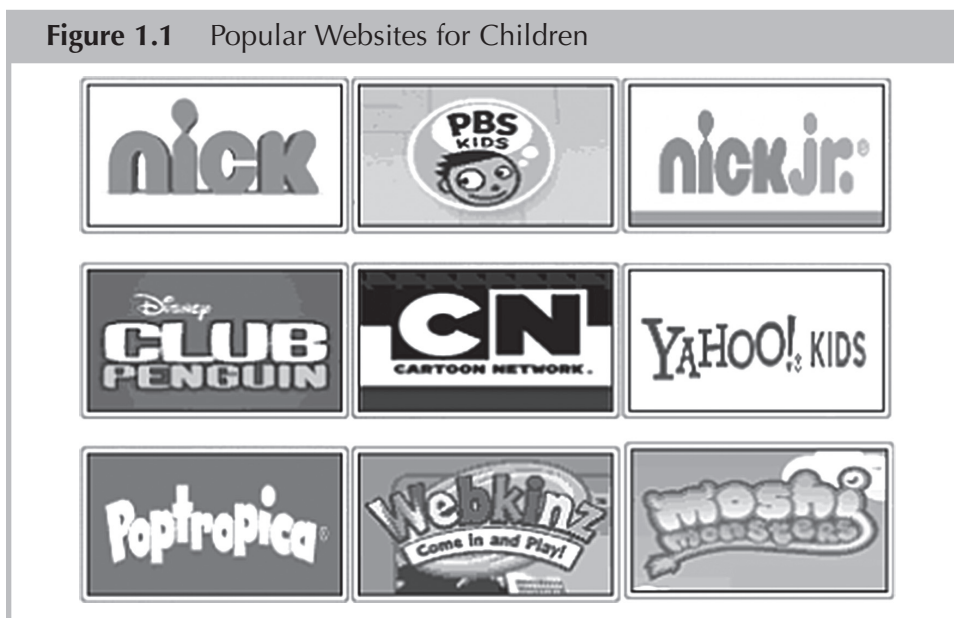
But it's not just a matter of differences in mere access to technology. Differences in skill level in using technology are generally influenced by a person's level of education and social class. Some children arrive to kindergarten able to turn on a computer, find programs, use the Internet, and whiz through a variety of applications; other children have not yet used a mouse or a trackpad.

Family influences clearly play a giant role. Sociologist Eszter Hargittai has conducted research with Internet users to understand differences among people in their levels of skill in using technology. As it turns out, people generally feel that their skills are adequate for their needs. Most of us are unaware of the magnitude of differences that exist between more skilled and less skilled users, since we tend to use the Internet independently and have few opportunities to observe others doing routine tasks. But skill differences in the use of the Internet can have real consequences when it comes to careers and jobs.¹⁰

OUR LOVE-HATE RELATIONSHIP WITH MASS MEDIA, POPULAR CULTURE, AND TECHNOLOGY

Elementary educators have long been ambivalent about the use of media and technology tools for young learners. Screen-based media activities are already such a dominant part of children's lives outside of school; many American children will spend more than 8 hours per day with television, video games, music, and the Internet. Figure 1.1 shows the variety of websites that depend on children's attention for their success.

And while there's plenty of content that supports the needs of young children, there's a lot of content that we wish they didn't see. When little boys imitate aggressive moves from kung-fu cartoons or little girls dance sexy while reciting profane music video lyrics they don't actually understand, many of us get a headache. We sympathize with the many parents and teachers who seek to provide alternatives to television, video games, and mass media that support children's physical, emotional, social, and



intellectual growth and development. Renee herself is a parent who set limits on her own children's media and technology use in order to be sure that her kids spent time outdoors and in artistic, creative, or dramatic play activities. For these reasons, we are sympathetic to the feelings of those educators who *ignore* the role of popular culture in the lives of young children.

But whether we like it or not, media culture is our culture. We can't escape it. That's why we also sympathize with parents who fully participate in media culture and who raise children who make active use of it. Indeed, more than one third of U.S. elementary teachers *embrace* the use of various types of media and technology, including videos, personal computers, interactive projectors and whiteboards, DVD players, and other forms of educational technology, for regular instruction—that is, at least once a week. About another third use them at least once a month, and another third use them hardly ever or not at all.¹¹

Computer games in education, similarly, have generally been conceptualized as either a waste of time, harmless fun, or a powerful new resource that will transform education. Since the 1980s, when *The Oregon Trail*, *Math Blaster*, and other programs first became commercially available, some educators have used computer games as a tool for learning; however, such activities were not always incorporated into the context of whole-classroom learning. Today, school librarians and classroom teachers still assemble links to a variety of generally free online learning games for children to use on the computer without integrating the activities into the routines of classroom practice.

Some elementary educators are discovering how to fully integrate gaming in ways that move beyond drill-and-practice stand-alone use. This

generally requires teachers with particular kinds of expertise and skill. For example, one innovative school, Quest to Learn, teaches systems thinking to middle school students using concepts of digital and media literacy. There, children practice “decoding, authoring, manipulating and unlocking meaning” by exploring games as learning environments.¹²

In the chapters that follow, you’ll learn about how all different sorts of media composition activities can engage young children in creating content themselves to discover the power of multimedia authorship. But in this book, we steer clear of either a “gee-whiz” approach to technology or a “danger, danger” mentality. Instead, we adopt a middle ground. We respect the differing motives that teachers have in using (or not using) media and technology with young learners.

One thing is certain: This book isn’t just about computers, technology, or gaming in education or the use of cool technology tools. To be frank with you, we don’t think that media and technology, in and of themselves, can transform education. Instead, we see media analysis and creative media production activities as a dimension of formal and informal *literacy education*. In this book, we will show how a new approach to literacy education can transform teaching and learning. Mass media, popular culture, and technology are resources that, when used well, promote the development of critical thinking, collaboration, communication, and creativity that support academic achievement.

MOTIVATION: CONNECTING CLASSROOM TO CULTURE

It’s no surprise that the use of digital media and technology tools engages and motivates young learners. Many educators can remember a time when simply wheeling in the TV cart would yield a squeal of excited happy voices. Today, many children enjoy the opportunity to use interactive whiteboards, clickers, and other new technologies. But some researchers have found that, when it comes to technology use in school, the novelty may wear off over time.¹³

The best educators do not simply use technology for its own sake; instead, they use media and technology to meet the genuine needs of their learners.

One reason technology may motivate and inspire student learning is that digital media, mass media, and popular culture help children make connections between the classroom and their ordinary everyday experiences. Adults and children alike enjoy talking about social media, online games, celebrities, musicians, actors, books and movies, news, and current events. References to television often dominate children’s informal social interactions, games, and jokes on the playground and in the lunchroom, as children use program details, celebrities, or other media incidents as points of discussion for informal peer engagement.¹⁴

High levels of student motivation and engagement are stimulated when children are empowered to bring their own interests, including their emerging tastes and preferences in popular culture and digital media, into rich and complex conversations with their teachers and peers. As we will see in this book, conversations move from trivial and superficial to complex and deep when children and students ask *why* and *how* questions about what we watch, listen to, play, see, and read.

When teachers permit and promote serious conversation about mass media and popular culture in the classroom, often these conversations are more substantive (and more unpredictable) than the relatively simple talk that children are having in responding to the content of basal readers.

For example, researchers in one classroom discovered that when talking about advertising, children developed spontaneous critiques of the representation of race, childhood, and class, even when curriculum materials did not suggest this approach.¹⁵ Researchers have argued that the use of children's popular culture in educational institutions may offer recognition of children's identities and the things they value, thus enhancing self-esteem and motivating children to participate more deeply in learning.¹⁶ For example, Anne Haas Dyson has examined how children blend images of football players, popular songs, plots from movies, and cartoons, using them in both personal narratives and extended pieces of writing.¹⁷ Such instructional practices engage learners and deepen their ability to participate fully in the learning process.

Why Does Digital and Media Literacy Matter? A Theory of Change

Rationale

1. Children are growing up with more access to media and technology than at any point in human history.
2. The rapid rate of change in the development of new communications technologies is likely to continue.
3. People now need to engage actively in lifelong learning in order to use new tools and resources to accomplish ordinary personal, social, cultural, and civic activities.
4. Digital media create *empowering* opportunities for people to connect with others and share ideas, engage in dynamic new forms of formal and informal learning, express their creativity, and use digital media and technology tools to participate as citizens in a democracy.
5. There are also real and potential *risks* associated with the digital age, including exposure to violent, harmful, or offensive content; manipulative advertising; inaccurate information, including sexual/racist/hate material; contact with strangers, privacy, cyberbullying, and cyberstalking; illegal downloading, gambling, hacking; and more.

6. Respect for intellectual property and reputational safety are important in a time when we are experiencing rapidly shifting notions of ownership, authorship, privacy, and social appropriateness.
7. Therefore, to protect against the negative aspects of contemporary media culture and to take advantage of the empowerment potential offered by digital media and technology, a constellation of life skills is needed.

Theory

8. Digital and media literacy includes the ability to
 - Access:** make responsible choices and access information by finding and locating materials and comprehending information and ideas;
 - Analyze:** understand messages in a variety of forms through textual and contextual analysis, identifying the author, purpose, and point of view and evaluating the quality and credibility of the content;
 - Create:** compose content in a variety of forms for authentic purposes, making use of language, images, sound, and new digital tools and technologies;
 - Reflect:** consider one's own conduct and communication behavior by applying social responsibility and ethical principles; and
 - Act:** take social action by working individually and collaboratively to share knowledge and solve problems in the family, workplace, community, nation, and world.
9. People share meaning through language (in print and oral forms), images, sounds, music, graphics, and interactivity.
10. Texts come in many forms. Each genre and medium of expression and communication demands certain learned competencies. For example, reading on screen, reading from a page, writing with a keyboard, and writing with a pencil are all practices that require particular skills.
11. Mass media and popular culture texts that connect children's experiences at home with new ideas and information increase the perceived relevance of school.
12. Learning textual and contextual analysis concepts like audience, purpose, and point of view supports the development of reading strategies. Critical analysis of mass media, popular culture, and digital media texts strengthens literacy development, especially with reluctant readers.
13. When learners use technology tools to compose and create messages, they activate multimodal literacy competencies.
14. Young children who are just learning to decode printed symbols can demonstrate comprehension, critical thinking, and textual and contextual analysis skills when using familiar media, including the texts of mass media and popular culture.
15. The practice of critical analysis and composition with digital media texts, tools, and technologies promotes intellectual curiosity and supports lifelong learning.

Lesson What's Inside and Outside the Frame

Lesson Description

The youngest students can learn about the frame—the special rectangle that goes around the edges of the television. Students learn that when media makers create messages, they make choices, intentionally using the frame to show some things, but leave others out.

Objectives

Students will

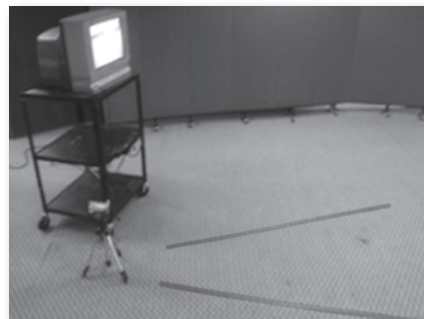
- understand that all media messages are constructed by people who make choices
- use imagination and make inferences
- create an informal video that intentionally includes and excludes various events

Vocabulary

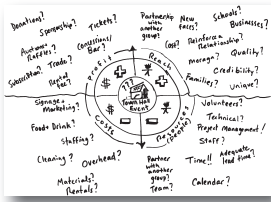
Camera
Monitor
Frame
Visible
Attention
Imagination

Resources and Materials

- ✓ A television or projector large enough for the entire group to view at once
- ✓ A camera that is capable of displaying a live image on your television or projector
- ✓ Tripod
- ✓ Painter's tape
- ✓ *Mister Rogers' Neighborhood* episode titled "Work: Go Behind the Scenes," which features the making of an episode of the program Cue the video so that the countdown timer reads 28:00.



Activity



Access

- ✓ Begin with students seated on the floor. Turn on your camera so that the students may see themselves on the screen and allow the students some time to giggle and experience seeing themselves on television.
- ✓ Turn off the camera and refocus the students' attention. Point out that the television screen is a rectangle. This rectangle is called the frame. The television shows us what is inside the frame, but it can't show us what is outside the frame.
- ✓ Invite each student to share one person or thing that they saw inside the frame, and then invite each student to point out one person or thing that was *left out*.

Analysis

- ✓ Invite a few students to share their favorite television shows. Let the students know that you would like to share a television show with them that many older people viewed when they were children.
- ✓ Play the *Mister Rogers* episode up until the end of the opening song, pausing as Mr. Rogers is finishing tying his shoes.
- ✓ Looking over the paused image with your students, invite them to share the things that they can see inside the frame. Encourage students to notice the background as well as Mister Rogers himself.
- ✓ Ask the students to use their imagination: What do you think is left out because it is outside the frame?
- ✓ Continue the video. After a brief introduction, Mister Rogers will show you that his "television house" is part of a large television studio. Pause the video after Mister Rogers sits down again and takes out the sheet music.
- ✓ Ask your students: What are some of the things that were outside the frame that we missed before? Did any of them surprise you?



Composition

- ✓ Have the students stand along the tape lines, and point out that they will be inside the frame on one side of the line, and outside the frame on the other side.
- ✓ Play a round of Simon Says with the frame: "Simon Says put just your hand in the frame," "Simon says put just your feet in the frame." Alternatively, you may sing/do the "Hokey Pokey" and put your hands, feet, and so on in and out of the frame. Record these activities and review them later as an assessment.



Reflection

- ✓ Discuss: What did students notice about what was in and out of the frame when we played the game?



Taking Action

- ✓ Explain that all TV images are made by people who make choices. When students create a message, they make these choices themselves. When they read books or watch TV, they can notice the choices made by other authors.

Source: Created by John Landis.

NOTES

1. Common Sense Media. (2011). *Zero to eight: Children's media use in America*. Retrieved from <http://www.commonsensemedia.org/sites/default/files/research/zerotoeightfinal2011.pdf>
2. Commonsense Media. (2011).
3. Commonsense Media. (2011).
4. Media and Learning Group at SRI. (2010). *Joint media engagement and learning*. Menlo Park, CA: SRI International.
5. Montgomery, K. (2007). *Generation digital: Politics, commerce and childhood in the age of the Internet*. Cambridge, MA: MIT Press.

6. Bruner, J. (1966). *Toward a theory of instruction*. Cambridge, MA: Belknap Press of Harvard University (p. 11).
7. Marsh, J., & Bearne, E. (2008). *Moving literacy on: Evaluation of the BFI lead practitioner for moving image media literacy*. Sheffield, UK: University of Sheffield.
8. Stephens, R. & Scott, E. V. (n.d.). *Ensuring workforce skills of the future: The birth to work pipeline*. Retrieved from <http://www.nsrconline.org/pdf/whitepaper105.pdf> (p. 2).
9. Gray, L., Thomas, N., & Lewis, L. (2010). *Educational technology in U.S. public schools: Fall 2008* (NCES 2010–034). Washington, DC: U.S. Government Printing Office.
10. Hargittai, E. (2008). The digital reproduction of inequality. In D. Grusky (Ed.), *Social stratification 2008* (pp. 936–944). Boulder, CO: Westview Press (p. 938).
11. Cuban, L. (2010, January 31). Confessions from a skeptic on computers in school [web log]. Retrieved from <http://larrycuban.wordpress.com/2010/01/31/confessions-from-a-skeptic-on-computers-in-school/>
12. Quest to Learn. <http://q2l.org>.
13. Bethel, E. C., Bernard, R. M., Abrami, P. C., & Wade, A. C. (2007, October). *The effects of ubiquitous computing on student learning: A systematic review*. Presentation at E-Learn 2007: World Conference on E-Learning in Corporate, Government, Healthcare, & Higher Education, Chesapeake, VA.
14. de Block, L. (2012). Entertainment education and social change: Evaluating a children’s soap opera in Kenya. *International Journal of Educational Development*, 32, 608–614.
15. Banaji, S. (2010). Analysing advertisements in the classroom. In C. Bazalgette (Ed.), *Teaching media in primary schools* (pp. 62–74). London, UK: Sage.
16. Bazalgette, C. (2010). *Teaching media in primary schools*. London, UK: Sage.
17. Dyson, A. H. (2003). *The brothers and sisters learn to write*. New York, NY: Teachers College Press.