

Digital and Media Literacy: A Plan of Action

A White Paper on the Digital and Media Literacy
Recommendations of the Knight Commission on the
Information Needs of Communities in a Democracy

written by
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The Aspen Institute and the John S. and James L. Knight Foundation invite you to join the public dialogue around the Knight Commission's recommendations at www.knightcomm.org or by using Twitter hashtag #knightcomm.

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From Report to Action

Implementing the Recommendations of the Knight Commission on the Information Needs of Communities in a Democracy

In October 2009, the Knight Commission on the Information Needs of Communities in a Democracy released its report, *Informing Communities: Sustaining Democracy in the Digital Age*, with 15 recommendations to better meet community information needs.

Immediately following the release of *Informing Communities*, the Aspen Institute Communications and Society Program and the John S. and James L. Knight Foundation partnered to explore ways to implement the Commission's recommendations.

As a result, the Aspen Institute commissioned a series of white papers with the purpose of moving the Knight Commission recommendations from report into action. The topics of the commissioned papers include:

- Universal Broadband
- Civic Engagement
- Government Transparency
- Online Hubs
- Digital and Media Literacy
- Local Journalism
- Public Media
- Assessing the Information Health of Communities

The following paper is one of those white papers.

This paper is written from the perspective of the author individually. The ideas and proposals herein are those of the author, and do not necessarily represent the views of the Aspen Institute, the John S. and James L. Knight Foundation, the members of the Knight Commission on the Information Needs of Communities in a Democracy, or any other institution. Unless attributed to a particular person, none of the comments or ideas contained in this report should be taken as embodying the views or carrying the endorsement of any person other than the author.

Digital and Media Literacy: A Plan of Action

Executive Summary

The time to bring digital and media literacy into the mainstream of American communities is now. People need the ability to access, analyze and engage in critical thinking about the array of messages they receive and send in order to make informed decisions about the everyday issues they face regarding health, work, politics and leisure. Most American families live in “constantly connected” homes with 500+ TV channels, broadband Internet access, and mobile phones offering on-screen, interactive activities at the touch of a fingertip. In an age of information overload, people need to allocate the scarce resource of human attention to quality, high-value messages that have relevance to their lives.

Today full participation in contemporary culture requires not just consuming messages, but also creating and sharing them. To fulfill the promise of digital citizenship, Americans must acquire multimedia communication skills that include the ability to compose messages using language, graphic design, images, and sound, and know how to use these skills to engage in the civic life of their communities. These competencies must be developed in formal educational settings, especially in K–12 and higher education, as well as informal settings. The inclusion of digital and media literacy in formal education can be a bridge across digital divides and cultural enclaves, a way to energize learners and make connections across subject areas, and a means for providing more equal opportunities in digital environments.

This report offers a plan of action for how to bring digital and media literacy education into formal and informal settings through a community education movement. This work will depend on the active support of many stakeholders: educational leaders at the local, state and federal levels; trustees of public libraries; leaders of community-based organizations; state and federal officials; members of the business community; leaders in media and technology industries, and the foundation community. It will take the energy and imagination of people who recognize that the time is now to support the development of digital and media literacy education for all our nation’s citizens, young and old.

In this report, we define digital and media literacy as a constellation of life skills that are necessary for full participation in our media-saturated, information-rich society. These include the ability to do the following:

- Make responsible choices and access information by locating and sharing materials and comprehending information and ideas

- Analyze messages in a variety of forms by identifying the author, purpose and point of view, and evaluating the quality and credibility of the content
- Create content in a variety of forms, making use of language, images, sound, and new digital tools and technologies
- Reflect on one's own conduct and communication behavior by applying social responsibility and ethical principles
- Take social action by working individually and collaboratively to share knowledge and solve problems in the family, workplace and community, and by participating as a member of a community

These digital and media literacy competencies, which constitute core competencies of citizenship in the digital age, have enormous practical value. To be able to apply for jobs online, people need skills to find relevant information. To get relevant health information, people need to be able to distinguish between a marketing ploy for nutritional supplements and solid information based on research evidence. To take advantage of online educational opportunities, people need to have a good understanding of how knowledge is constructed and how it represents reality and articulates a point of view. For people to take social action and truly engage in actual civic activities that improve their communities, they need to feel a sense of empowerment that comes from working collaboratively to solve problems.

There is growing momentum to support the integration of digital and media literacy into education. The U.S. Department of Education's 2010 technology plan, "Transforming American Education: Learning Powered by Technology," notes, "Whether the domain is English language arts, mathematics, sciences, social studies, history, art, or music, 21st-century competencies and expertise such as critical thinking, complex problem solving, collaboration, and multimedia communication should be woven into all content areas. These competencies are necessary to become expert learners, which we all must be if we are to adapt to our rapidly changing world over the course of our lives, and that involves developing deep understanding within specific content areas and making the connections between them" (p. vi).

Senator Jay Rockefeller (D-WV) has proposed a bill, the 21st Century Skills Incentive Fund Act, that would provide matching federal funds to states offering students curriculum options that include information literacy and media literacy. According to the bill, "Students need to go beyond just learning today's academic context to develop critical thinking and problem solving skills, communications skills, creativity and innovation skills, collaboration skills, contextual learning skills, and information and media literacy skills" (S. 1029, 2009). If passed, the bill would appropriate \$100 million a year for states that develop a comprehensive plan to implement a statewide 21st-century skills initiative and are able to supply

matching funds. Similarly, members of Congress Tammy Baldwin (D-WI), and Shelley Moore Capito (R-WV) have sponsored the Healthy Media for Youth Act (H.R.4925) which authorizes \$40 million to support media literacy programs for children and youth. But these efforts, as substantial as they are, even if they are passed, will not be enough.

At the heart of this momentum is the recognition that we must work to promote people's capacity to simultaneously empower and protect themselves and their families as everyday lives become more saturated and enmeshed with information. As philosopher John Dewey made clear, true education arises from thoughtful exploration of the genuine problems we encounter in daily life. Information needs are both personal and civic (Knight Commission, 2009). We look to digital and media literacy to help us more deeply engage with ideas and information to make decisions and participate in cultural life.

Rather than viewing empowerment and protection as an either-or proposition, they must be seen as two sides of the same coin. Because mass media, popular culture and digital technologies contribute to shaping people's attitudes, behaviors and values, not only in childhood but across a lifetime, there is a public interest in addressing potential harms. For healthy development, children and youth need privacy, physical and psychological safety, and freedom from exposure to objectionable, disturbing or inappropriate material. At the same time, media and technology can empower individuals and groups. People gain many personal, social and cultural benefits from making wise choices about information and entertainment, using digital tools for self-expression and communication, and participating in online communities with people around the neighborhood and around the world who share their interests and concerns.

To strengthen digital citizenship and make digital and media literacy part of mainstream education in the United States, a series of key steps, both large and small, will be necessary. In this report, a plan of action includes 10 recommendations for local, regional, state and national initiatives aligned with the themes of community action, teacher education, research and assessment, parent outreach, national visibility and stakeholder engagement. These action steps do more than bring digital and media literacy into the public eye. Each step provides specific concrete programs and services to meet the diverse needs of our nation's citizens, young and old, and build the capacity for digital and media literacy to thrive as a community education movement.

Support Community-Level Digital and Media Literacy Initiatives

1. Map existing community resources and offer small grants to promote community partnerships to integrate digital and media literacy competencies into existing programs.

2. Support a national network of summer learning programs to integrate digital and media literacy into public charter schools.
3. Support a Digital and Media Literacy (DML) Youth Corps to bring digital and media literacy to underserved communities and special populations via public libraries, museums and other community centers.

Develop Partnerships for Teacher Education

4. Support interdisciplinary bridge building in higher education to integrate core principles of digital and media literacy education into teacher preparation programs.
5. Create district-level initiatives that support digital and media literacy across K–12 via community and media partnerships.
6. Partner with media and technology companies to bring local and national news media more fully into education programs in ways that promote civic engagement.

Research and Assessment

7. Develop online measures of media and digital literacy to assess learning progression and develop online video documentation of digital and media literacy instructional strategies to build expertise in teacher education.

Parent Outreach, National Visibility, and Stakeholder Engagement

8. Engage the entertainment industry’s creative community in an entertainment-education initiative to raise visibility and create shared social norms regarding ethical behaviors in using online social media.
9. Host a statewide youth-produced Public Service Announcement (PSA) competition to increase visibility for digital and media literacy education.
10. Support an annual conference and educator showcase competition in Washington, D.C. to increase national leadership in digital and media literacy education.

Today, people struggle with the challenges of too much information. For example, millions of people search for health information online every day. One survey found that 75 percent of these searchers do not pay heed to the quality of the information they find, and 25 percent reported becoming frustrated, confused or overwhelmed by what they find (Fox, 2006). The impulse to address the problem of information overload leads us to digital and media literacy, which can help people develop the capacity to manage and evaluate the flood of data threatening to overtake them. It is vital for citizens of a pluralistic democracy who are committed to freedom and diversity to develop these competencies:

- Reading or watching the news
- Writing a letter to the editor
- Talking with family, co-workers and friends about current events
- Commenting on an online news story
- Contributing to an online community network
- Calling a local radio talk show host to express an opinion
- Taking an opinion poll
- Searching for information on topics and issues of special interest
- Evaluating the quality of information they find
- Sharing ideas and deliberating
- Taking action in the community

But people cannot be forced to engage with the public life of the community—they have to experience for themselves the benefits that come from such engagement. That’s why this plan of action focuses on helping people of all ages not simply to use digital tools but also to discover both the pleasures and the power of being well-informed, engaged and responsible consumers and producers.

Digital and media literacy education offers the potential to maximize what we value most about the empowering characteristics of media and technology, while minimizing its negative dimensions. As the Knight Commission report, *Informing Communities: Sustaining Democracy in the Digital Age*, explains, informed and engaged communities need citizens who appreciate the values of transparency, inclusion, participation, empowerment, and the common pursuit of the public interest.

But this report also identifies some challenges that a plan of action must address to be effective. Educators, curriculum developers and policymakers must consider five challenges when implementing programs in digital and media literacy:

1. Moving beyond a tool-oriented focus that conflates having access to media and technology with the skillful use of it
2. Addressing risks associated with media and digital technology
3. Expanding the concept of literacy
4. Strengthening people’s capacity to assess message credibility and quality
5. Using news and journalism in the context of K–12 education

Existing paradigms in technology education must be shifted towards a focus on critical thinking and communication skills and away from “gee-whiz” gaping over new technology tools. We must consider the balance between protection and empowerment and respond seriously to the genuine risks associated with media and digital technology. We must better understand how digital and media literacy competencies are linked to print literacy skills and develop robust new approaches to measure learning progression. We must help people of all ages to learn skills that help them discriminate between high-quality information, marketing hype, and silly or harmful junk. We must raise the visibility and status of news and current events as powerful, engaging resources for both K–12 and lifelong learning while we acknowledge the challenges faced by journalism today and in the future.

An effective community education movement needs a shared vision. This report offers recommendations that involve many stakeholders, each participating in a way that supports the whole community.

DIGITAL AND MEDIA LITERACY
A PLAN OF ACTION

Renee Hobbs

Digital and Media Literacy: A Plan of Action

“Integrate digital and media literacy as critical elements for education at all levels through collaboration among federal, state and local education officials.”

— Recommendation 6, *Informing Communities:
Sustaining Democracy in the Digital Age*

The Knight Commission Recommendation

Children and young people are growing up in a world with more choices for information and entertainment than at any point in human history. Most Americans now live in “constantly connected” homes with broadband Internet access, 500+ channels of TV and on-demand movies, and with mobile phones offering on-screen interactive activities with the touch of a fingertip. Global media companies from Google to Viacom to News Corporation dominate the media landscape, despite the rapid growth of user-generated content. As entertainment and news aggregators replace editorial gatekeepers, people now have access to the widest variety of content—the good, the bad, and the ugly—in the history of the world.

But in addition to mass media and popular culture leisure activities, many people are discovering the pleasures of participating in digital media culture, being able to stay connected to friends and family, share photos, learn about virtually anything, and exercise their creativity by contributing user-generated content on topics from cooking to politics to health, science, relationships, the arts and more. While at one time it was expensive and difficult to create and distribute videos and print publications, now anyone can publish his or her ideas on a blog or upload a video to YouTube.

The rapid rate of change we are experiencing in the development of new communications technologies and the flow of information is likely to continue. Consequently, people need to engage actively in lifelong learning starting as early as preschool and running well into old age in order to use evolving tools and resources that can help them accomplish personal, social, cultural and civic activities. At the same time, people are increasingly aware of the negative aspects of life in a media and information-saturated society. Contemporary media culture includes ultraviolent and sexually explicit movies, pornography, gossip-mongering blogs, public relations masquerading as news, widespread sales promotion of unhealthy products, hate sites that promote prejudice, sexism, racism and terrorism, cyber bullying, cyber terrorism, and unethical online marketing practices. Stalking, online bullying and cell phone harassment may affect physical and psychological

safety. Intellectual property and reputation are also vitally important issues in a time when we are experiencing rapidly shifting notions of ownership, authorship, privacy and social appropriateness.

Such ubiquitous and easy access to so many information and entertainment choices requires that people acquire new knowledge and skills in order to make wise and responsible decisions. For people to achieve the personal, professional and social benefits of thriving in a digital age, these skills are not just optional or desirable—they are the essential elements of *digital citizenship*.

The Knight Commission's report, *Information Communities: Sustaining Democracy in the Digital Age*, recognized that people need news and information to take advantage of life's opportunities for themselves and their families. To be effective participants in contemporary society, people need to be engaged in the public life of the community, the nation and the world. They need access to relevant and credible information that helps them make decisions.

This necessarily involves strengthening the capacity of individuals to participate as both producers and consumers in public conversations about events and issues that matter. Media and digital literacy education is now fundamentally implicated in the practice of citizenship.

To address these needs of digital citizenship, the Knight Commission made three recommendations that directly address the issue of digital and media literacy education in the context of formal and informal public education sectors:

Recommendation 6: Integrate digital and media literacy as critical elements for education at all levels through collaboration among federal, state and local education officials.

Recommendation 7: Fund and support public libraries and other community institutions as centers of digital and media training, especially for adults.

Recommendation 12: Engage young people in developing the digital information and communication capacities of local communities.

The Heritage of Digital and Media Literacy

When people think of the term “literacy,” what generally springs to mind is reading and writing, speaking and listening. These are indeed foundational elements of literacy. But because today people use so many different types of expression and communication in daily life, the concept of literacy is beginning to be defined as the ability to share meaning through symbol systems in order to fully participate in society. Similarly, the term “text” is beginning to be understood as any form of expression or communication in fixed and tangible form that uses

symbol systems, including language, still and moving images, graphic design, sound, music and interactivity.

New types of texts and new types of literacies have been emerging over a period of more than 50 years. Many closely interrelated terms describe the new set of competencies required for success in contemporary society. These include terms like *information literacy*, *media literacy*, *media education*, *visual literacy*, *news literacy*, *health media literacy*, and *digital literacy*, among others. Each term is associated with a particular body of scholarship, practice and intellectual heritage, with some ideas stretching back to the middle of the 20th century and other ideas emerging in the past couple of years. These terms reflect both the disciplinary backgrounds of the stakeholders and the wide scope of the knowledge and skills involved.

These concepts must not be treated as competitors. Referencing philosopher Ludwig Wittgenstein's concept of family resemblance, one scholar identifies the shared heritage among these new literacies and argues, "The boundaries between the various members of this family overlap, but they should be seen as a closely-knit family" (Horton, 2007, p. 15).

We can consider different types of literacy to be part of the same family. For example, information literacy has typically been associated with research skills. Media literacy typically has been associated with critical analysis of news, advertising and mass media entertainment. Health media literacy has been associated with exploring media's impact on making positive choices related to nutrition, exercise, body image, violence and substance abuse prevention. Digital literacy is associated with the ability to use computers, social media, and the Internet.

Although they reflect distinct and important theoretical ideas and values from different disciplinary traditions and historical contexts, effective programs in all of the "new media literacies" reveal many similarities. The recommendations in this report draw on the broad similarities that unite this work, which comes from many fields and disciplines including education, reading and literacy, public health, literature and the humanities, sociology, human development and psychology, cultural studies, library and information science, journalism, communication and new media studies.

In this report, the term "digital and media literacy" is used to encompass the full range of cognitive, emotional and social competencies that includes the use of texts, tools and technologies; the skills of critical thinking and analysis; the practice of message composition and creativity; the ability to engage in reflection and ethical thinking; as well as active participation through teamwork and collaboration. When people have digital and media literacy competencies, they recognize personal, corporate and political agendas and are empowered to speak out on behalf of the missing voices and omitted perspectives in our communities. By identifying and attempting to solve problems, people use their powerful voices and their rights under the law to improve the world around them.

For all aspects of daily life, people today need a constellation of well-developed communication and problem-solving skills that include these competencies:

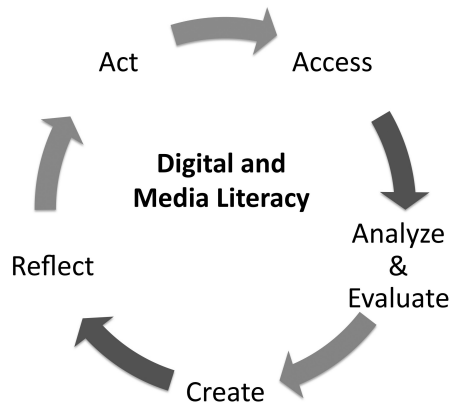


Figure 1: Essential competencies of Digital and Media Literacy

These five competencies work together in a spiral of empowerment, supporting people’s active participation in lifelong learning through the processes of both consuming and creating messages. This approach is consistent with constructivist education, which, as Brazilian education scholar Paulo Freire described, adopts “a concept of women and men as conscious beings...and with the posing of the problems of human beings in their relations with the world” (1968, p. 51).

The five digital and media literacy competencies shown below represent a synthesis of the full complement of scholarship and thinking about “new literacies.” These ideas have been acknowledged by major groups and professional associations including the International Reading Association (IRA), the National Council of Teachers of English (NCTE) and the National Council for Accreditation of Teacher Education (NCATE), just to name a few.

As the Common Core State Standards Initiative (2010) points out, “To be ready for college, workforce training, and life in a technological society, students need the ability to gather, comprehend, evaluate, synthesize, report on, and create a high volume and extensive range of print and nonprint texts in media forms old and new. The need to research and to consume and produce media is embedded into every element of today’s curriculum.”

Teacher education programs recognize the importance of preparing future teachers to be skilled in digital and media literacy. The Professional Standards for the Accreditation of Teacher Preparation Institutions states: “Teachers understand media’s influence on culture and people’s actions and communication; as a result, teachers use a variety of approaches for teaching students how to construct mean-

Essential Competencies of Digital and Media Literacy
1. ACCESS Finding and using media and technology tools skillfully and sharing appropriate and relevant information with others
2. ANALYZE & EVALUATE Comprehending messages and using critical thinking to analyze message quality, veracity, credibility, and point of view, while considering potential effects or consequences of messages
3. CREATE Composing or generating content using creativity and confidence in self-expression, with awareness of purpose, audience, and composition techniques
4. REFLECT Applying social responsibility and ethical principles to one's own identity and lived experience, communication behavior and conduct
5. ACT Working individually and collaboratively to share knowledge and solve problems in the family, the workplace and the community, and participating as a member of a community at local, regional, national and international levels

ing from media and nonprint texts and how to compose and respond to film, video, graphic, photographic, audio, and multimedia texts” (NCATE Standards, 2007, p. 57). The National Council of Teachers of English adopted a resolution encouraging “preservice, inservice, and staff development programs that will focus on new literacies, multimedia composition, and a broadened concept of literacy” (NCTE, 2003). The National Communication Association (NCA, 1998) states that media-literate communicators should be able to do the following:

- Understand how people use media in their personal and public lives
- Recognize the complex relationships among audiences and media content
- Appreciate that media content is produced within social and cultural contexts
- Understand the commercial nature of media
- Use media to communicate to specific audiences

But genuine educational change in K–12 and higher education does not come about simply by generating documents or developing written standards. Similarly, websites that distribute curriculum materials and lesson plans only go so far in

helping teachers acquire the knowledge and skills they need to bring these practices to their students.

What is needed now is a clear and compelling vision of the instructional practices that can best support the development of these new competencies among all Americans. In this paper, a plan of concrete action is offered to help these practices to become standard in the context of home, school and workplace.

Meeting the Needs of All

In a country with over 300 million residents, there is no “one-size-fits-all” program. Many different types of programs will be necessary to help build a community education movement for digital and media literacy. Both formal and informal learning environments can support the development of people’s digital and media literacy competencies. These skills can be developed in the home and through programs in K–12 schools, libraries, museums, summer and afterschool programs, local cable access centers, college and universities, and non-profit organizations.

It is important to maximize effectiveness by developing community-based informal or formal learning programs that reach specific sub-groups or targeted populations. For example, K–12 programs reach children and teens, university programs reach young adults, and libraries and cable access programs reach working and non-working adults. But many groups of American citizens go without access to resources or programs that support digital and media literacy education. There are some underserved audiences that will benefit from special opportunities to develop digital and media literacy competencies.

Minority Children, Youth and Families – A recent report by the Kaiser Family Foundation showed that African-American and Hispanic children ages 8–18 spent more than 12 hours daily in some form of mediated experience, which is nearly two hours more than white children (Kaiser Family Foundation, 2010). Meanwhile, all parents are faced with many decisions about parenting in a technology-saturated society, as children may watch videos in the car, play videogames on cell phones as early as age three, have their own cell phones by age seven or eight, and create their own Facebook pages before reaching their teen years.

Special Education Students – Students enrolled in special education programs may be more vulnerable to media influence because of limitations in skills, including comprehension, inference-making and using social or environmental cues. They may not recognize the difference between informative and persuasive messages, for example, or may be quick to click on a link based on purely visual cues. Yet these young people also need the ability to use the media in all its forms, including new and emerging forms of technology that may be helpful in supporting their learning.

Juvenile Offenders – Young people who experience the juvenile justice system may be among the most vulnerable to negative messages in the media because of

the lack of supportive adults and other resiliency factors. But when exposed to digital and media literacy education, they can receive valuable benefits from using the power of media and technology for reflection and expression, building self-esteem, advocacy and critical thinking skills.

New Immigrants – These individuals are highly motivated to acquire the knowledge and skills they need to be successful in their new homeland. Many use communication devices and media to stay connected with family and their countries of origin. But they also may use media and technology as a “window on the world” to develop language skills and to understand American culture and values without appreciating the unique characteristics of the American commercial media system, which differs in fundamental ways from those of many other countries.

Senior Citizens – Older people are heavy consumers of television and may be particularly vulnerable to certain persuasive messages, (e.g., advertisements for prescription medicine, over-the-counter drugs, and nutritional supplements). Improving their digital and media literacy would not only help them better evaluate this information, it would also offer them the benefits of information sharing and the social connectedness available through social media. In the United Kingdom, the Silver Surfers Program provides one-on-one assistance for seniors who need support as they master basic computer skills, including using the mouse, keyboarding, and file management. SeniorNet has been doing the same in the United States since 1986.

Sadly, there are too few programs in the United States that help bring digital and media literacy to special education students, parents of young children, those in juvenile justice programs, new immigrants, people with disabilities, and senior citizens. To meet the needs of all the members of our communities, it will be important to support the development of customized, replicable and scalable digital and media literacy programs to reach these underserved groups. It is necessary to do so in the environments where learning already occurs.

Where Learning Occurs

Strategic partnerships between families, schools, non-governmental organizations and libraries can help build a community education movement for digital and media literacy education. Consider where learning occurs.

In the Home – Digital and media literacy competencies can be learned in the home, where most people watch television and movies, surf the Internet, listen to music, read newspapers and magazines, and play videogames. With appropriate levels of parental engagement, many digital and media literacy competencies can be learned at home, provided parents have high levels of interest and motivation and the drive to gain knowledge and skills. Organizations like Common Sense Media provide parents with tools to help them start conversations with their children about the responsibilities of media and technology use.

K–12 Education – Programs in elementary and secondary schools can help students develop access, analysis/evaluation, and creative competencies in relation to the academic subjects of math, language arts, social studies, science and health education. For example, these programs may help children and teens use online databases to find information related to school subjects like science or health, create multimedia slide presentations, engage in group problem solving or work collaboratively on a video project related to school subjects in history or literature.

Library Programs – Libraries provide the general public with access to computers and the Internet and may offer programs to help people use technology tools. One third of Americans age 14 and over (about 77 million people) accessed the Internet at a public library in the past year (Becker et al., 2010). Libraries generally offer one-on-one support to patrons, helping them find information on the Internet or demonstrating how to use email and other software applications, library databases or search engines. This is the most personalized and effective form of education. Librarians connect people to jobs, news, education, services, health information, friends and family—as well as community engagement and civic participation. Librarians often model critical thinking skills in finding and evaluating information.

Youth Media Programs – Hundreds of small programs that serve teens provide them with opportunities to critically analyze and create multimedia messages using traditional and interactive media. These programs can help young people see themselves as active participants in their communities, helping to solve problems through the power of effective communication and social advocacy.

Local Access – In those communities where there is a cable public access system, members of the public can learn to use video and digital media and can create programs that reflect their special interests, issues and hobbies. These programs help people use video cameras to collect and edit footage and produce a in-studio talk show, “how to” program or documentary.

Higher Education – Programs offered through colleges and universities may emphasize competencies that focus on critical analysis and advocacy. For example, these programs may involve groups of people analyzing local press coverage of a particular event or topic of local concern or creating a public information campaign about an important issue to increase community awareness.

Learning and Teaching: What Works

Today, educators use a variety of engaging texts, including those from mass media, popular culture and digital media, to support the development of digital and media literacy competencies across K–12 and higher education. With support from creative teachers, students use books, movies, websites, newspapers, blogs, wikis, and games for learning. They also use instructional practices that enable students to take personal responsibility for their own learning.

Instructional Practices of Digital and Media Literacy Education	
<i>Keeping a media-use diary</i>	Record-keeping activities help people keep track of media choices and reflect on decisions about sharing and participation, deepening awareness of personal habits.
<i>Using information search and evaluation strategies</i>	Finding, evaluating and sharing content from a variety of sources helps people explore diverse sources of information. Using search strategies appropriate to one's needs helps people make discriminating choices about quality and relevance.
<i>Reading, viewing, listening and discussing</i>	Active interpretation of texts helps people acquire new ideas, perspectives and knowledge and make sense of it in relation to lived experience. Dialogue and sharing help deepen understanding and appreciation.
<i>Close analysis</i>	Careful examination of the constructed nature of particular texts encourages people to use critical questioning to examine the author's intent and issues of representation.
<i>Cross-media comparison</i>	Comparing and contrasting two texts that address the same topic help people develop critical thinking skills. By examining genre, purpose, form and content, and point of view, people recognize how media shape message content.
<i>Gaming, simulation and role-playing</i>	Playful activities promote imagination, creativity and decision-making skills, supporting people's reflective thinking about choices and consequences.
<i>Multimedia composition</i>	Message composition using a combination of language, images, sound, music, special effects and interactivity provides real-world experience addressing a particular audience in a specific context to accomplish a stated goal. Teamwork, collaboration and knowledge sharing enhance creativity and deepen respect for the diverse talents of individuals.

Notice that none of these instructional practices are dependent upon using a particular set of texts, tools or technologies. That is why digital and media literacy education can be applied to a variety of technologies and with entertaining, persuasive and informational content. These instructional practices can be used across all grade levels and subject areas, including social studies, science, literature, health, mathematics, the arts and the vocational and professional fields, in both formal and informal educational settings.

It is also important to recognize that many of these instructional practices are already standard in some fields of study. They do not necessarily require either expensive equipment or time-consuming hours of instruction to develop. They *do* require the presence of educators who have the skills and experience necessary to use these practices in productive ways to support genuine learning. In this report, we see teachers and learners (not technology) as the vital resources at the heart of the vision for how digital and media literacy competencies are best acquired.

The successful application of these instructional practices depends on creating a respectful learning environment where students' lived experience is valued and multiple points of view are encouraged. Digital and media literacy education activates independent thinking, authentic dialogue, collaboration, reflection, creativity, and social responsibility as applied to the practices of responding to, creating and sharing messages (NAMLE, 2007; Partnership for 21st Century Skills, 2010). Fortunately, this definition of digital and media literacy education resonates with diverse stakeholders in the education, media, technology, museum, non-profit, social service and library communities.

A comprehensive plan of action is needed to build a community education movement for digital and media literacy education. Many diverse stakeholders are already moving towards this goal. Groups like the Partnership for 21st Century Skills have done a commendable job in helping school leaders and policymakers understand the "big picture" scope of the challenge. The federal government, through the Commerce Department's National Telecommunications and Information Administration (NTIA) is providing \$4 billion through the Broadband Technology Opportunities Program (BTOP), which will help bring broadband infrastructure to local communities along with supporting public computing centers and providing training opportunities. With support from the John D. and Catherine T. MacArthur Foundation, the Digital Youth Network and the YOUmedia program at the Chicago Public Library has enabled young people to collaborate and create using digital media. Still, much work is needed to make digital and media literacy a fundamental part of K–12, higher education and life-long learning, in and out of school.

Issues to Consider When Implementing Digital and Media Literacy Programs

In developing a plan of action, there are five challenges that educators and community leaders must consider in implementing programs in digital and media literacy: (1) moving beyond a tool-oriented focus that conflates having access to technology with the skillful use of it, (2) addressing risks associated with media and digital technology, (3) expanding the concept of literacy, (4) strengthening people's capacity to assess message credibility and quality, and (5) bringing news and current events into K–12 education.

Moving Beyond a Tool-Oriented Focus that Conflates Having Access to Media and Technology with the Skillful Use of It. Generally, neither children nor adults acquire critical thinking skills about mass media, popular culture or digital media just by using technology tools themselves. Educators frequently complain about a generation of children who cannot distinguish between standard English grammar and spelling and the discourse of text messaging. Many teens lack the ability to identify appropriate keywords for an online search activity, and many young adults cannot identify the author of a web page. These same children and young people often are convinced they are expert researchers because they can find information “on Google.” However, some of these same youth produce and upload their own dance videos for their favorite songs, collaborate to solve problems in videogames, use mobile phones to show up for impromptu local events, and make their own fictional newspapers about their favorite fantasy-novel characters.

The larger concern is whether people will be able to transfer their self-developed digital skills beyond their affinity groups, fan communities or local social cliques. Although young people are using digital media, we should not assume they are digitally literate in the sense that we are discussing it here (Vaidhyanathan, 2008). People who play Farmville on Facebook may (or may not) have the skills they need to search for information about jobs, education and health care. For young people today, it is vital that formal education begin to offer a bridge from the often insular and entertainment-focused digital culture of the home to a wider, broader range of cultural and civic experiences that support their intellectual, cultural, social and emotional development.

In many schools, despite significant investment in technology, teachers are not making effective use of the engaging instructional practices of digital and media literacy. The reasons for this vary. Some teachers do not know how to use technology tools. Some mistake the mere transfer of classroom materials from paper to a com-

puter screen as effective use. Others do not have the time to spare on media production projects because they are busy preparing children for high-stakes testing.

One thing is certain: simply buying computers for schools does not necessarily lead to digital and media literacy education. Schools have a long way to go on this front. Access to broadband is a substantial issue as diffusion is uneven across American cities and towns (Levin, 2010). Mandatory Internet filtering in schools means that many important types of social media are not available to teachers or students. And though there are computers with Internet access in most classrooms, fewer than half of American teachers can display a website because they do not have a data projector available to them. When computers are used, most American students use them to prepare written documents, drill-and-practice on basic skills, or to make Powerpoint presentations (U.S. Department of Education, 2010).

Sadly, some people equate the amount of money that school districts spend on technology or the numbers of students enrolled in online learning programs as a proxy for digital and media literacy education. Some of the hype surrounding “digital natives” and the transformative potential of technology in education is promoted uncritically by fans of social media or subsidized by those who stand to benefit from selling data systems, interactive white boards, games or cell phones.

Many American parents mistakenly believe that simply providing children and young people with access to digital technology will automatically enhance learning. These days, across a wide range of socioeconomic strata, the “soccer mom” has been replaced by the “technology mom” who purchases a Leapfrog electronic toy for her baby, lap-surfs with her toddler, buys a Wii, an xBox and a Playstation for the kids and their friends, puts the spare TV set in the child’s bedroom, sets her child down for hours at a time to use social media like Webkinz and Club Penguin, and buys a laptop for her pre-teen so she will not have to share her own computer with the child.

In many American homes, the computer is primarily an entertainment device, extending the legacy of the television, which is still viewed for more than 3 hours per day by children aged 8 to 18, who spend 10 to 12 hours every day with some form of media (Kaiser Family Foundation, 2010). The computer is used for downloading music, watching videos, playing games and interacting on social networks.

While some may assume that the computer is used as a research tool for exploring the world, keeping up with current events and learning new things, research has shown that many people lack the knowledge and skills to use the computer for these purposes (Hargittai & Walejko, 2008). Parents’ behavior and attitudes towards technology are a critical factor in predicting a child’s experience and approaches towards media (Pew Internet and American Life Project, 2009). Research shows that students who have at least one parent with a graduate degree

are significantly more likely to create content, either online or offline, than others. “While it may be that digital media are leveling the playing field when it comes to exposure to content, engaging in creative pursuits remains unequally distributed by social background” (Hargittai & Walejko, 2008, p. 256).

For these reasons, educators must not just teach *with* digital technologies, tools or games. To develop digital and media literacy competencies it is necessary to teach *about* media and technology, making active use of the practices of dialogue and Socratic questioning to promote critical thinking about the choices people make when consuming, creating and sharing messages. As Buckingham (2007, p. 113) explains, “Rather than seeing the web as a neutral source of ‘information,’ students need to be asking questions about the sources of that information, the interests of its producers and how it represents the world.”

One example of a program that works to develop these competencies in children and teens is Kids Voting USA, which provides civic education and preparation for voting with news reading and media analysis activities. Students are also encouraged to analyze political advertisements, news stories, and candidate debates (McDevitt & Chaffee, 2000). Similarly, research conducted in Maine as part of the middle-school laptop initiative shows that when science teachers use engaging digital and media literacy projects as part of a science lesson, students retain information longer, and when digital and media literacy instructional practices are used in teaching middle-school students, their ability to analyze the content and quality of informational websites improves (Berry & Wintle, 2009; Pinkham, Wintle & Silvernail, 2008).

The inherently engaging and immersive environment of games may make it difficult for young people to recognize the constructed nature of the digital environment and how it shapes personal and social action. But when children and young people become game-makers, they develop important skills while building an understanding of games as an interactive message system. The World Wide Workshop Foundation’s Globaloria project is an example of a program that uses game design to develop important digital and media literacy skills through its emphasis on participation and critical thinking. By becoming authors, game programmers and designers, students deepen their awareness of the choices involved in the structure and function of technology tools themselves.

Learners need opportunities to interact with audiences beyond their family and like-minded friends. The competencies promoted by digital and media literacy are fundamentally tied to true participation in a community, where engaging with people different from ourselves helps us clarify our own ideas, look at the world for different viewpoints, and in the process, deepen our own learning and develop a sense of connectedness to the people around us.

Using game design in education: Globaloria

Produced and launched by the World Wide Workshop Foundation in 2006, Globaloria is an innovative social learning network for designing and programming web-games that uses social media technology and computational tools for project-based learning.

Participants create educational games for their own personal and professional development, and for the social and economic benefit of their communities. The Program, while aimed at youth ages 12 and up, is suitable for students at all levels and does not require any prior web design or programming experience.

Instead of separate silos for vocational and technical education, academic subjects, and college preparation, Globaloria combines them all into a year-long project of approximately 150 hours, similar to computer gaming and software industry workplace practices. The scalable learning network includes programmable wikis and blogs, game programming tutorials, game content resources and a customizable self-paced curriculum with model implementations and alignments to a state's curriculum standards.

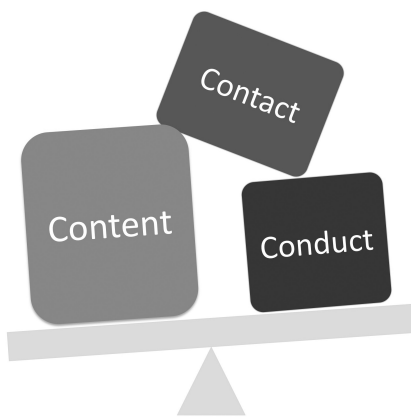
The largest Globaloria pilot is in West Virginia, where educators in 41 middle schools, high schools, community colleges and universities work with students, individually and collectively, to develop games and create original content. Globaloria West Virginia is used as a vehicle for teaching core subjects such as biology, English, and civics, where educators customize and align the curriculum with the West Virginia Department of Education's Content Standards and Objectives and 21st-Century Skills (Global21).

East Austin College Prep Academy (EACPA) in Austin, Texas is the first charter school to integrate Globaloria curriculum school-wide. During the 2010-11 school year, 6th and 7th grade students at EACPA are taking a daily, 90 minute Globaloria class, where they develop original math and science games in addition to tracking social issues affecting the community they live in. The program reaches out to students' families as well to extend learning into the home. The Globaloria EACPA curriculum is aligned with the Texas Content Standards for Mathematics (TEKS), ELA and Technology Learning. Support for Globaloria at EACPA is provided by AMD, Southwest Key, the Caperton Fund and the World Wide Workshop Foundation.

What makes Globaloria successful, according to Dr. Idit Harel Caperton, President & Founder of the World Wide Workshop Foundation, are three things. First, the participatory structure at the center of the program's design. Students and teachers learn by doing. Second, the strong partnerships the program has forged with government officials, education departments, private and public foundations, local business, industry and institutes of higher education. And third, the culture of transparency and collaboration that Globaloria brings into schools.

Addressing Risks Associated with Media and Digital Technology. Digital and media literacy competencies are not only needed to strengthen people’s capacity for engaging with information but also for addressing potential risks associated with mass media and digital media. For example, concerns about identity theft are emerging as the Federal Trade Commission reports that 10 million Americans were victimized last year by willingly giving personal information to robbers, often because “they couldn’t distinguish an email from their bank from an email from a predator” (Rothkopf, 2009, p. 5). This example is just the tip of the iceberg, of course. While many people actively support pro-social goals by contributing to a social network, there are others who exploit digital technology for harmful ends.

In the United States and many Western countries, the risk-benefit pendulum swings back and forth over time, through periods of increased (or decreased) concern about the negative aspects of media and technology. Comprehensive research from the European Union (Staksrud, Livingstone, Haddon, & Ólafsson, 2009) identifies three types of risk associated with the use of mass media, popular culture and digital media:



- **Content risks** – This includes exposure to potentially offensive or harmful content, including violent, sexual, sexist, racist, or hate material.
- **Contact risks** – This includes practices where people engage in harassment, cyber bullying and cyber stalking; talk with strangers; or violate privacy.
- **Conduct risks** – This includes lying or intentionally misinforming people, giving out personal information, illegal downloading, gambling, hacking and more.

Figure 2: Categories of risk associated with the use of mass media, popular culture and digital media

Some people are determined to flatly ignore, dismiss or trivialize any risks associated with digital media, mass media and popular culture. In the United States, the discourse about risks and opportunities continues to swing back and forth between fear, anxiety and optimism, reflecting ideas about the need to both protect and empower children and youth in relation to media and technology. In recent years, we have seen fear-inducing headlines about suicides brought on by online harassment give way to anxieties about Internet predators, then give way

again to optimism about social networking, including the possibility that children are developing social learning skills by updating their Facebook pages or playing World of Warcraft (Ito et al, 2008).

But most people recognize that the stances of protection and empowerment are not examples of “either-or” thinking, since these two positions are not in opposition—they are two sides of the same coin. Both empowerment and protection are needed to address the transformative social potential of the Internet in the context of child and adolescent development.

For example, when it comes to sexuality, both empowerment and protection are essential for children, young people and their families. Young people can use the Internet and mobile phone texting services to ask difficult questions about sexuality, get accurate information about sexual health and participate in online communities. The Internet also enables and extends forms of sexual expression and experimentation, often in new forms, including webcams and live chat. Pornography is a multibillion dollar industry in the United States. In a country with the highest teenage pregnancy rate of all Western industrialized countries in the world, a recent report from the Witherspoon Institute (2010) offers compelling evidence that the prevalence of pornography in the lives of many children and adolescents is far more significant than most adults realize, that pornography may be deforming the healthy sexual development of young people, and that it can be used to exploit children and adolescents. Teens have many reasons to keep secret their exposure to pornography, and many are unlikely to tell researchers about their activities. But about 15 percent of teens aged 12 to 17 do report that they have received sexually explicit images on their cell phones from people they knew personally (Pew Internet and American Life Project, 2009).

A 2008 Centers for Disease Control report notes that 9 percent to 35 percent of children and young people also say they have been victims of electronic aggression (Centers for Disease Control and Prevention, 2008). Sexting and cyber bullying are examples of how human needs for power, intimacy, trust and respect intersect with the ethical challenges embedded in social participation in a digital environment. That is why empowerment and protection are so deeply linked.

Digital and media literacy will not be a panacea for American social problems. And it will not let media companies and producers off the hook when it comes to their own social responsibility. As Jenkins et al (2006, p. 19) point out, one key goal of media literacy education is to “encourage young people to become more reflective about the ethical choices they make as participants and communicators and the impact they have on others.”

Expanding the Concept of Literacy. Make no mistake about it: digital and media literacy does not replace or supplant print literacy. At a time when the word “text” now means any form of symbolic expression in any format that conveys meaning, the concept of literacy is simply expanding. *Literacy is beginning to be understood*

as the ability to share meaning through symbol systems in order to fully participate in society. Print is now one of an interrelated set of symbol systems for sharing meaning. Because it takes years of practice to master print literacy, effective instruction in reading and writing is becoming more important than ever before. To read well, people need to acquire decoding and comprehension skills plus a base of knowledge from which they can interpret new ideas. To write, it is important to understand how words come together to form ideas, claims and arguments and how to design messages to accomplish the goals of informing, entertaining or persuading.

Some literacy educators recognize the value of digital media simply for its ability to get kids engaged in learning, to help them pay attention in school. Although educators know that motivation and engagement are enhanced when mass media, popular culture and digital media and technology are incorporated into learning, this is not (and should not be) the sole rationale for implementing digital and media literacy into the curriculum. When used well, news media, mass media and digital media texts can support the acquisition of literacy competencies including comprehension, inference-making, analysis and prediction. Concepts like audience, purpose and point of view must be applied to messages from digital media and popular culture as well as printed texts. Participating in digital and media literacy activities also promotes writing, public speaking and advocacy, empowering children and young people by offering opportunities to express themselves using language, images, sound and interactivity (Alvermann, 2004; Hobbs, 2008; Gainer and Lapp, 2010).

Reading online is now a fundamental dimension of digital and media literacy that requires many interrelated practices, including using a search engine, reading search engine results, and quickly reading a web page to locate the best link to the information that is required. Many people lack these skills (Coiro, 2007). When using a search engine, it is not uncommon to see inefficient practices like clicking down the list of links in a “click and look” strategy without looking for clues to determine the relevance of the websites to the purpose and goal.

Digital and media literacy education requires and supports the practices of reading comprehension and writing. Large-scale empirical research evidence shows that student participation in media literacy education programs in high school can strengthen reading comprehension, writing, and print-media analysis skills (Hobbs, 2007). That is because digital and media literacy educational practices cultivate an active approach to the process of meaning making in ways that help knowledge and skills to transfer from school to home and back.

To promote reading and writing skills, adolescent literacy experts have long urged teachers to make literacy experiences more relevant to students’ interests, everyday life, and important current events, recommending, “Look for opportunities to bridge the activities outside and inside the classroom. Tune into the lives of students to find out what they think is relevant and why, and then use this information to design instruction and learning opportunities that will be more relevant” (U.S. Department of Education, 2008, p. 28).

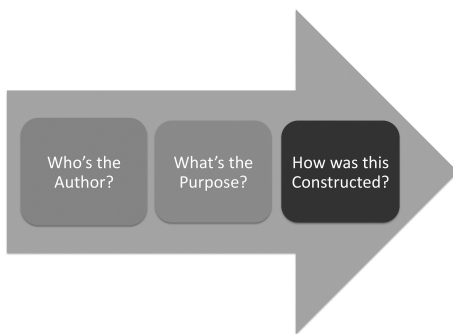
But although people do develop many skills informally through their use of digital media with peers in online communities and social groups, without routine practice in making connections between print literacy and digital and media literacy competencies, those skills are unlikely to transfer to new contexts (Salomon & Perkins, 1989). Digital and media literacy education can provide a bridge to transfer print literacy skills from informal to formal, familiar to new, and narrow to broad contexts.

Strengthening People's Capacity to Access Message Credibility and Quality. Librarians and researchers tell us that, when looking for information online, many people give up before they find what they need. People use a small number of search strategies in a repetitive way even when they do not get the information they are seeking. They do not take the time to digest and evaluate what they encounter. In many cases, "students typically use information that finds them, rather than deciding what information *they* need" (Cheney, 2010, p. 1).

In addition, many people also use very superficial criteria for assessing the quality of a message. Likeability, attractiveness, trustworthiness and expertise all affect our decisions about the credibility of people, information and ideas. We can easily understand that younger children may be more susceptible to digital misinformation and less able to discern credible sources. But actually, few people verify the information they find online—both adults and children tend to uncritically trust information they find, from whatever source. "Digital media allow for the uncoupling of credibility and authority in a way never before possible," notes Miriam Metzger, a researcher at the University of California, Santa Barbara. In addition, family, co-workers and friends have always influenced our decisions about what to trust. Today, judgments about what is credible can be shaped by participation in online communities. Our ideas about credibility and reliability are also shifting in relation to networked environments and services like collectively created encyclopedias, reviews and ratings services (Metzger, 2009).

So how do we expand our capacity to use reasoning in deciding who and what to believe? With so many sources of information available, assessing credibility is difficult, even for adults. Many people simply use cues like graphic design to evaluate the credibility of a source. According to this view, if it "looks right," it is credible. The Internet blurs the lines between amateur and professional, between entertainment and marketing, between information and persuasion. We experience a "context deficit," where information about authorship is often unavailable, masked or entirely missing. For example, websites that aggregate information may display materials from multiple sources on one web page, which may itself be inaccurately perceived as the source. Hyperlinking may make it even more difficult for users to follow and evaluate multiple sources (Harris, 2008; Metzger, 2007).

At a broader level, the immediacy and immersive social characteristics of digital media may also discourage reflective, analytic thinking about sources, content and credibility. It is just so simple, point, click and wow, you're on to something new.



To judge the credibility of information, it is important to begin by answering these three basic questions: Who's the author? What's the purpose of this message? How was this message constructed? These simple but powerful questions enable people to assess the relative credibility of a media message.

In fact, for the savvy user, skillful use of digital information can enhance the process of fact checking and source comparison.

Figure 3: Basic questions to assess the credibility of information

People who pay attention to the quality of media messages also need to be self-aware, possessing a general understanding of human perceptual and cognitive processes. Among these include our natural tendencies to value sources as credible only when they reinforce our existing beliefs and attitudes. It is part of human nature: people tend to trust the sources that match our existing opinions and distrust information that challenges our beliefs. Awareness of this tendency, which is emphasized by those who teach news media literacy, can help people become more open and receptive to diverse sources and points of view. These insights can be useful in addressing the problem of political polarization, where extreme and often simplistic positions come to dominate and overpower more moderate, nuanced points of view.

People also need increased awareness of the practice of “source stripping,” where almost immediately as we process information, we detach the content from the source, forgetting where we learned it (Eysenbach & Kohler, 2002). Digital and media literacy education can offer people an increased knowledge of human information processing, self-awareness and self-reflexivity, which can help counteract these tendencies. Research and assessment tools are needed to better understand which instructional “best practices” support the development of people’s ability to evaluate the quality of information they receive from print, television, movies, advertising and digital media sources.

Bringing News and Current Events into K–12 Education. American adults can probably remember the practice of cutting out a newspaper article about a “current event” and bringing it into social studies class. But civics-oriented education, with its use of everyday journalistic resources, has been declining as a component of the American educational curriculum for over 50 years. In 1947, more than half

of American high schools offered a course in Problems in Democracy that emphasized reading of news magazines (Hobbs, 1998). Times have changed.

Today, young people tell us that the news is a significant source of stress, because it reminds them of the peril the world is in and makes them feel unsafe and threatened. Although teens read the news only incidentally, when they do, they prefer news about music, entertainment, celebrities, and sports (Vahlberg, Peer & Nesbit, 2008). Some child development professionals believe it is not good for children or young people to read or watch the news (American Academy of Child and Adolescent Psychiatry, 2002). Research has shown that violent news content actually induces more fear reactions than violent fiction, creating persistent worrisome thoughts in some children and young people (Kaiser Family Foundation, 2003). Almost 4 in 10 parents report that their children have been frightened or upset by something they have seen in the news and have concern that it can happen to them or their family (Cantor & Nathanson, 1996).

Using news and current events in the classroom can also be controversial. When President Obama's televised back-to-school speech to the nation's schoolchildren was blasted by conservative critics who accused the President of trying to spread propaganda, it illustrated perhaps the biggest challenge teachers face in bringing news and current events into the classroom. In addition, in an era of competition for and fragmentation within the news audience, no simplistic assumptions can be made about the nature of what information sources count as trustworthy and authoritative. Many teachers are reluctant to use news and current events in an increasingly polarized political climate (Hobbs, et al 2010; Hobbs, 2001). But as Mihailidis has observed, "Making the connections between media literacy, freedom of expression, and civic engagement can reposition media literacy as the core of new civic education" (Mihailidis, 2009, p. 9).

While in the United Kingdom and Western Europe news and information programming for children and teens is provided as a public service initiative, in the United States, it is almost purely a commercial enterprise. At the secondary level, *Channel One* provides television news and advertising to six million teens. Research has shown that teens gain current events knowledge from viewing this program only when teachers support students' learning by asking questions and promoting reflective dialogue (Johnston, Brzezinski & Anderman, 1994). At the elementary level, *Time for Kids* and Scholastic both offer magazines and online content specifically for children; however, these programs generally have a limited focus on news and current events, often favor articles of topical or seasonal interest and are less likely to reach students in low-income schools.

Newspaper industry programs like Newspapers in Education (NIE) provide newspapers to schools through advertising sponsorship and other donation programs. However, NIE programs have faced substantial cutbacks as newspaper revenues continue to decline. With NIE staff assuming responsibility for fundraising, sales and marketing, there is less time to focus on curriculum and instruction (Arnold, 2010). Access to quality journalism has been an additional expense for school districts in communities that are often strapped to manage even basic expenses. In both the United States and the U.K. “It has proved difficult to support, develop and sustain teaching about broadcast news because of the ephemerality of the subject matter and the effort involved in bringing current TV, radio or Internet news into the classroom” (Bazalgette, Harland & James, 2008, p. 81).

Whether we like it or not, the use of news media in the K–12 classroom is not sufficiently on the radar screen in American public education. Still, there are efforts underway to explore the development of curriculum and resources to engage students as active participants in the process of creating journalism. While these efforts are more developed at the university level, programs are springing up at the high school level and even younger. One example is Palo Alto High School in Palo Alto, California, where the media program is the fastest growing program in the school. The program’s director has reported that more than 500 students out of a student body of 1,900 have elected to take journalism on one platform or another (Wojcicki, 2010).

We have good evidence from studies of high school journalism, which show that participating student journalists enhance their own civic engagement skills by exercising a public voice (Levine, 2008). But much less is known about how regular reading, viewing and discussion of news and current events affects the development of students’ knowledge and skills. Regular engagement with news and current events may support the development of learners’ background knowledge. It may help build connections between the classroom and the culture. It may help learners see how news and current events are constructed by those with economic, political and cultural interests at stake. It may help them appreciate how audiences understand and interpret messages differently based on their life experiences, prior knowledge and attitudes.

Careful video documentation of instructional practices in digital and media literacy education, especially in relation to the use of news and current events in the context of formal and informal education, is needed. This will help build a base of research evidence to help scholars and educators determine which approaches to using news and current events in the classroom are most likely to empower students in a way that supports their development as citizens.

A Look Inside One Program: Seattle's Common Language Project

Nearly every city in America has at least one program in digital and media literacy. In Seattle, the Common Language Project at the University of Washington offers media literacy and production workshops in a variety of educational settings. Jessica Partnow, a Seattle media literacy educator, wants her students to more deeply understand how news values are culturally inflected.

Working in local schools, she began one lesson by asking students to compare and contrast the English-language news monthly *Egypt Today* with *Newsweek*. Both magazines had featured articles on the Israeli-Lebanese conflict in 2006. *Egypt Today* ran a several-page spread of full color photos depicting desperate people searching for friends and family in the dusty rubble of a freshly-bombed apartment complex; another photo showed a dead body before it had been covered with a sheet. In contrast, *Newsweek* used an infographic as its main illustration: stick figures in red and blue to indicate the numbers of injuries and deaths on either side of the conflict.

As Partnow explains, students “respond to the idea that our media are sanitizing our information for us. They enjoy a rebellious, typical teenage reaction to being told what to think. Others pick up on the emotional manipulation inherent in printing pictures of extreme suffering—or in choosing not to print them.” These discussions help students think about how—and who—is processing their information for them. And perhaps even more importantly, the lessons “foster a love for what she calls the ‘mind-boggler,’ or questions that do not have one simple answer—where wrestling with every side of the issue is what is most important” (Partnow, 2010, p. 1). This program also provides an interactive portal where students cannot only read, listen to and view stories, but also interact with journalists and fellow students in the U.S. and in Nairobi, Kenya, created in partnership with the Pulitzer Center on Crisis Reporting.

Portraits of Success (found in the Appendix) offers a list of other noteworthy organizations and programs where pioneering stakeholders have shown a common interest in strengthening students’ digital and media literacy competencies. These programs are enabling communities to acquire the knowledge and expertise that is needed to develop and implement effective programs at the local, state and national levels.

A Plan of Action: 10 Recommendations

To support the development of digital and media literacy competencies for all Americans, we need a comprehensive community education movement. Local, regional, state and national initiatives are essential. It will take time to build the infrastructure capacity and human resources necessary to bring digital and media literacy education to all citizens.

There are some key audiences and locations where this work must occur, including children and youth, new immigrants, special education students, juvenile offenders, and senior citizens, in K–12 schools, universities and colleges,

libraries, youth media and local access centers. To achieve the buy-in necessary for success, initiatives must capitalize on existing local programs and resources and enroll new stakeholders, including educational leaders, members of the business community, and members of professional associations who are motivated to develop and sustain programs.

Community Initiatives

1. Map existing community resources in digital and media literacy and offer small grants to promote community partnerships to integrate digital and media literacy competencies into existing programs.

City and community leaders often have little awareness of programs and services in digital and media literacy education. Increased awareness and better coordination would help develop leadership, promote partnerships, and build organizational capacity to support the expansion of work in the community. Community-focused foundations, media or technology companies should support the work of community leadership panels to map existing community resources in digital and media literacy. For example, the Comcast Foundation, through its partnership with Digital Connectors, could support digital and media literacy mapping projects in the communities where Comcast provides service.

In each participating community, the sponsoring entity would charge an experienced local group with mapping a community's existing programs in digital and media literacy. Mapping resources, training and services along the essential dimensions of digital and media literacy education will make it possible to identify the assets that already exist in the community as well as the core values and priorities each program offers. It can also identify underserved populations. This will help identify gaps in programs and services.

The foundation or corporate sponsor could offer small annual grants of between \$25,000 and \$75,000, targeted to develop pilot programs to bring digital and media literacy education to specific populations with greatest need in the community. The foundation and its partners could host an annual community event to showcase programs and projects and promote networking and leadership development at the community level.

One example of a local group with the capacity to map a community's digital and media literacy resources is the Gateway Media Literacy Partners. GMLP is a confederation of community leaders with experience in developing media literacy programs in St. Louis, Missouri. This group is established as a regional caucus of the National Association for Media Literacy Education (NAMLE).

Community Partnerships: The Digital Connectors Program

The Digital Connectors Program was launched by One Economy in 2001 in Washington, D.C. The program identifies young people from diverse backgrounds between the ages of 14 to 21 and immerses them in certified technology training. The training helps these young *digital connectors* build leadership skills and prepares them to enter the 21st century workplace. Participants give back to their community by training family members and residents on how to use technology effectively.

In addition to hands-on learning, digital connectors also learn about career opportunities through site visits to technology companies, job shadowing experiences, and campus tours. Many participating youth receive stipends through their City's employment program or new computers as compensation for their efforts.

Programs are run in housing developments, community centers, libraries and schools. To date, more than 3,500 young people from diverse, low-income backgrounds have been trained as *digital connectors*. These young people have contributed more than 77,000 hours of service to their communities spreading digital literacy.

In late 2010, with federal funding from the American Recovery and Reinvestment Act (ARRA) and corporate matches, One Economy and the Broadband Opportunity Coalition, a leading civil rights organizations, will expand Digital Connectors programs substantially. The expanded program will train 2,500-3,000 youth through the launch of 167 Digital Connector programs in 19 major cities throughout the country.

2. Support a national network of summer learning programs to integrate digital and media literacy into public charter schools.

Schools should leverage their in-school summer programs to fully realize the transformative potential of digital and media literacy education, especially for children in low-income communities. More than 75 percent of American children receive no summer learning experience during the months of summer vacation. Much of the achievement gap between lower- and higher-income youth can be explained by the summer learning loss that disproportionately affects low-income children (Finn, 2010). Taking advantage of the ability to blend fun and education, and keeping kids involved in learning activities during the summer, a national network of summer learning programs in digital and media literacy for urban youth should be formed. One example of such a program is Powerful Voices for Kids, a university-school program that brings digital and media literacy education to children ages 5 to 15 through a summer learning program. The program is staffed by recent college graduates and includes a professional development program for teachers, in-school and after-school mentoring, and a research and assessment program. It receives support from the Wyncote Foundation, Verizon Foundation, and the Brook J. Lenfest Foundation.

Charter schools in low-income communities are receptive to innovation and ready to implement in-school summer learning programs. Over one million children in 3,500 schools are enrolled in public charter schools (Berends, 2009). In-school summer programs can also help inspire teachers to introduce the instructional practices of digital and media literacy during the academic year. By engaging students in enrichment activities that capitalize on their interests in mass media, popular culture and digital media, the program enables children to build positive relationships with peers and adults, use digital media and technology for learning, and develop critical thinking and communication skills. Recent college graduates and media professionals can serve as program staff for the 4 to 6 week summer learning program, providing a powerful service learning opportunity that builds civic awareness. In coordination with the National Alliance for Public Charter Schools, this program could be supported in the same manner as the National Writing Project, with direct federal funding to build, sustain, and expand the national network. Federal investment could be matched one-to-one by university, local, state, and private dollars. Congress should pass the Healthy Media for Youth Act (H.R.4925) as this competitive grant program could also support summer programs that support media literacy programs for children and youth.

3. Support a Digital and Media Literacy (DML) Youth Corps to bring digital and media literacy to underserved communities and special populations via public libraries, museums and other community centers.

There are many American adults who are not using broadband connections and services. They cite factors such as access, relevance, lack of digital literacy skills and cost among the reasons they have not become adopters of high-speed Internet and digital media. They may see media as “just entertainment” and have declared themselves “not computer people.” They may be intimidated by technology and unsure of where to start or how to use it. By opting out, they are missing out on the opportunity to use digital media to enhance daily life. To accommodate often busy lives, adults need flexible, short-term and drop-in programs, catered to their needs, where they can explore and learn, supported by knowledgeable and supportive assistants who offer just-in-time learning strategies. Most people learn new digital skills from a combination of trial-and-error strategies along with an “elbow-to-elbow” friend who offers appropriate help and support when needed.

Congress should dedicate 10 percent of Americorps funding for the development of a Digital and Media Literacy (DML) Youth Corps. The DML Youth Corps would be a service outreach program that offers training and professional development in digital and media literacy to a group of recent college graduates and places them, in teams, to work in public libraries, school libraries and technology centers, local public access centers, and other community non-profit organizations.

Three to five partnership programs from different regions of the U.S. could be tapped to recruit, train and support DML corps members. Existing programs, such

as the recently launched Public Media Corps, or a National Digital Literacy Corps as proposed in the National Broadband Plan, could be engaged or serve as models. Corps members would be responsible for offering informal digital media learning programs to adults in coordination with the hosting organization. Participants might be introduced to innovative websites like Finding Dulcinea, which helps Internet users quickly and easily find the best, most credible websites. In coordination with the American Library Association, some members of this team could be responsible for hosting a “Silver Surfers Week” based on the model developed in the U.K., which is a library-based program designed to support the development of digital and media literacy competencies among people ages 55+. Corps members could receive a small stipend for their 12-month service.

Partnerships for Teacher Education

4. Support interdisciplinary bridge building in higher education to integrate core principles of digital and media literacy education into teacher preparation programs.

Digital and media literacy education cannot come into the classroom without teachers who have the knowledge and skills to teach it. At the present time, many K–12 educators are not familiar with the instructional practices of digital and media literacy education, creating a leadership gap in schools. A parallel gap exists at most colleges and universities because the silos between disciplines mean there is little interface between faculty in the schools of education and communication. Most schools of education lag behind in bringing innovative digital and media literacy education to their students because faculty do not make active use of digital media themselves. Most faculty in schools of communication specialize in professional digital media training but have little expertise in developing non-specialist programs that address the needs of children, youth and other underserved populations. Teacher education programs must give their students rich digital and media literacy learning experiences if they hope to inspire them to include this pedagogy in their own teaching.

Future teachers could be well served if colleges and universities invested in the building of interdisciplinary bridges that bring faculty and students together for co-learning opportunities. Programs at the University of Minnesota, the University of New York at Buffalo and Stony Brook, the University of Southern California, Temple University, Syracuse University, Webster University in St. Louis, Sacred Heart University in Connecticut and other schools have begun such initiatives, bringing together faculty in schools of communication and education for community-based learning initiatives.

State departments of education should make available a competitive pool of monies exclusively for university and college partnerships to support cross-disciplinary teacher education programs in digital and media literacy education

that enable intensive collaboration between faculty and students in education and communication/media studies programs to support community-based digital and media literacy learning. These colleges and universities should develop certification programs in digital and media literacy so that school districts can hire teachers with this specific set of knowledge and skills.

5. Create district-level initiatives that support digital and media literacy across K–12 via community and media partnerships.

To integrate digital and media literacy education into the curriculum, teachers already in service must receive meaningful staff development. The average American teacher is 50 years old and will be working for another 10 to 15 years (Ingersoll, 2009). School districts should dedicate funding to support a fast-track, 12-month coordinated staff development program in digital and media literacy at the district level. This could be staffed by teams that include technology specialists, library/media educators, education and communication faculty and community partners, including those from professional media organizations. Training should make use of the instructional practices of digital and media literacy education. School districts could offer opportunities to “catalyst teachers” who would participate in 10 full days of professional development in partnership with a college or university over the course of an academic year. Some of this training can be offered online. Upon completion of the program, educators will receive a certificate that enables them to offer professional development to others in their district. A rigorous evaluation component should assess program impact on both teachers’ classroom practices and their students’ knowledge and skills. States should make available matching funds for school districts that invest in teacher education programs in digital and media literacy. Foundations should support research on district-level initiatives to help develop a base of scholarship to support the field.

6. Partner with media and technology companies to bring local and national news media more fully into education programs in ways that promote civic engagement.

News media resources can be powerful tools to support citizenship education and strengthen digital and media literacy competencies. Whereas in the past, access to print news required a subscription and TV news content was available only by viewing at a specific time, now it is at our fingertips on a 24/7 basis. New services are emerging online to help people use, analyze and share news content. As the Knight Commission report noted, technology companies can make an enormous contribution to the public interest by volunteering their expertise and resources.

There are a host of innovative online news tools already on the market that could better enable teachers and students to use and analyze print, online and television news as part of general education. For example, the Know the News

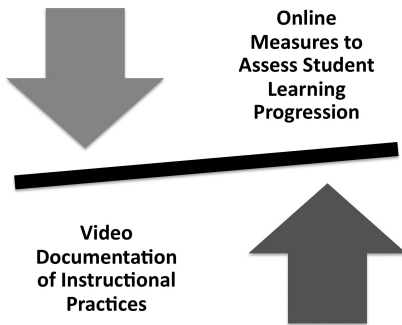
project from Link TV enables students to remix broadcast news, discovering how choices in language, image and editing shape the meaning-making process. The New York Times Learning Network has over 3,000 lesson plans and activities that help teachers and students easily and meaningfully connect current events to perennial classroom topics and enable students to comment on the news. Video news aggregation services like Red Lasso (www.redlasso.com) make it possible for people to select, edit and circulate excerpts of local TV news content for private or public purposes, selecting and embedding clips of local news from more than 150 media markets. News Trust (www.newstrust.com) uses a news ratings system to enable people to see how others evaluate the quality of informational content of print news media reports. NBC Learn has launched I-Cue (www.icue.com), a social networking website where NBC video clips and related news stories are fashioned into virtual trading cards.

At the present time, however, few educators are taking advantage of these new tools. To help develop a cadre of teacher leaders to spread the word about the value of using existing online news tools, modest grants from media and technology companies could be used to support partnerships between the developers of these new tools and key educational groups. School districts, community colleges, museums, libraries, colleges and universities could be invited to apply for these funds, which would support teacher education and outreach activities. This would empower educators and their students to discover fresh ways to engage with local news using new online resources. Well-publicized examples of effective instructional strategies for using these tools, generated by educators and students themselves, could also support the growth of digital and media literacy education across the disciplines and content areas.

Research and Assessment

7. Develop online measures of media and digital literacy to assess learning progression and develop online video documentation of digital and media literacy instructional strategies to build expertise in teacher education.

It is important to make a case for the importance of digital and media literacy—and offering compelling evidence of need is a vital first step. Many people who have well-developed digital and media literacy competencies wrongly assume that others have the same levels of knowledge and skills they possess. Those who lack these skills may be unaware of the utility or value of these competencies. Compelling test results are essential to help establish the importance of—and need for—digital and media literacy education.



Two key action items are proposed here that reflect the need for both top-down and bottom-up assessment strategies: (a) online measures of students' learning progression and (b) video documentation of instructional practices to support best practices research that will enhance teacher education.

Figure 4: Top-down and Bottom-up Assessment Strategies

Online Measures to Assess Students' Learning Progression – Measures of digital and media literacy are desperately needed to measure learning progression. There are so many dimensions of media and digital literacy that it will take many years to develop truly comprehensive measures that support the needs of students, educators, policymakers and other stakeholders. Although “technological literacy” will be part of the 2012 National Assessment of Educational Progress (NAEP), this framework will *not* include digital and media literacy competencies (Cavanaugh, 2009). Therefore, an online test dedicated to digital and media literacy is needed. First, three to five benchmarks for assessment need to be developed, targeted to children and young people ages 9, 14 and 19. This could be used to both establish the need for new programs and to measure program effectiveness. The Department of Education should initiate funding to support a simple online test requiring no more than 30 minutes to complete that could measure the ability to (a) use digital tools including basic and more advanced skills, (b) analyze and evaluate the author's purpose and point of view, (c) identify ethical issues in message production and reception, (d) make judgments of the credibility of information sources and (e) compose messages using language, image and sound.

Video Documentation of Instructional Practices – Like most professionals, teachers learn new skills best when they have the opportunity to observe and analyze the practices of their peers and colleagues. An online database of video excerpts of digital and media literacy learning is needed as a resource for teacher education programs locally, district and statewide, nationally and around the world. These video excerpts should be accompanied with teacher-created lesson plans, samples of student work and other materials, including opportunities for users to comment, review and critique. Such a resource should also be used to develop research evidence to identify “best practices” by determining which approaches to digital and media literacy education are most effective. It could also be used as the basis upon which to develop a meaningful test for new teachers to measure their ability to implement digital and media literacy instructional practices into the curricu-

lum. At the present, few states require new teachers to demonstrate competence in digital and media literacy education. The state of Texas does include measures of digital and media literacy education competencies as 15 percent of the test for new English teachers in grades 8–12 (Texas Education Agency, 2006), but the methodology of brief written vignettes with multiple choice options limits its effectiveness. The online video documentation tool should be coordinated by the National Association for Media Literacy Education (NAMLE). Members should be able to upload clips of their own teaching practices and download clips for use in teacher education. Such a database should be supported by a major philanthropy or charitable foundation in order to dramatically improve our knowledge of effective practices in teacher education for digital and media literacy education.

Parent Outreach, National Visibility, and Stakeholder Engagement

8. Engage the entertainment industry’s creative community in an entertainment-education initiative to raise visibility and create shared social norms regarding ethical behaviors in using online and social media.

As participation in digital culture spreads, we are seeing the development of social norms for how people interact with technology. Right now, there are few culturally normative practices that truly support the growth of digital and media literacy. For example, most people do not know exactly what it means to “ask critical questions” about mass media, digital media, or popular culture. Parents may not be aware of the importance of sitting with their children and learning along with them about online social media. Others may think of the television and the computer as devices for diversion or entertainment only. To strengthen people’s capacity for engaging with information, it is important to envision what digital and media literacy practices actually look like in the context of ordinary life in the family, workplace and community.

To raise the level of visibility of the concept of digital and media literacy in the home, an education-entertainment initiative, similar to the one developed for the “designated driver” campaign, is needed. In the classic case, Jay Winsten of the Harvard School of Public Health met with Hollywood producers and writers to explore possibilities for integrating the topic of the designated driver into popular television programs. Since “entertainment not only mirrors social reality, but also helps shape it by depicting what constitutes popular opinion,” the program was effective because it used short messages, embedded within dialogue, that were casually presented by characters who serve as role models within a dramatic context (Winsten, 2010). With support from the Writers Guild of America West, over a four-year period, more than 160 prime-time programs incorporated sub-plots, scenes, and dialogue on the subject, including frequent references to the use of designated drivers. Most importantly, alcohol-related traffic fatalities declined by 30 percent over this time period.

We propose targeting a specific dimension of digital and media literacy, perhaps an ethically problematic but common online behavior (like spying, harassment, intolerance, cyber bullying or sexting). A website that archives and offers examples of this programming could help parents and educators use these TV clips to extend learning and discussion opportunities in both the home and the classroom.

Working with the Writer's Guild of America West, the Creative Coalition, and potentially other partners, including Viacom, Comcast, Time Warner and Disney, entertainment programs for children, teens and adults could address the problem and identify appropriate solutions, helping to establish and reinforce social norms about responsibilities and behavior in online communication. With a modest investment in an entertainment-education campaign, social norms and ethical practices regarding the use of online social media could become part of our cultural vocabulary.

9. Host a statewide youth-produced PSA competition to increase visibility for digital and media literacy education.

Youth-media programs involve students in video, print, and online media production. There are a number of youth media initiatives across the United States despite the extremely limited funding opportunities available to them. The optimistic spirit of "youth voice" is inspiring to those who work in cities and communities. Now the field is well-developed enough to support a journal, *Youth Media Reporter*, which offers a place for youth media advocates and professionals to share ideas about what works and why. A community education movement for digital and media literacy must include a prominent role for youth media advocates. Local or national celebrities also have a role to play in bringing attention to the talents of young people who are working to develop critical thinking, social responsibility and communication skills using language, image, sound, music and interactivity.

Statewide competitions should be developed to motivate youth-media organizations to make digital and media literacy a focus topic for community advocacy. Working collaboratively, youth media organizations, high school video production programs, and local access centers, working with cable providers in coordination with *Channel One* schools should host an annual statewide PSA competition, inviting video, audio or script/storyboard submissions from youth media organizations, public access centers, and individuals. The contest might involve telling a story in 30 seconds about the benefits that come from thinking critically and being socially responsible about digital media, mass media and popular culture, using the tag line "Get Media Smart." Winning entries should be produced, hosted by a prominent celebrity, and distributed via local access and public television stations across the state.

Local libraries and public media organizations should host community screenings featuring the local producers who contributed to the project. A social media

website could showcase all entries and offer “one-stop shopping” style information about digital and media literacy concepts that can be effective in the home and community. A group of young leaders should be recognized at a special event sponsored by the White House.

10. Support an annual conference and educator showcase competition in Washington, D.C. to increase national leadership in digital and media literacy education.

To build a community education movement for digital and media literacy, visibility is needed among media professionals, members of Congress, federal and state officials, and business, trade and civic membership associations. It is important to nurture the development of professional associations for digital and media literacy education, enabling educators to share experiences about “what works,” showing how digital and media literacy education is relevant to a wide range of stakeholders. At present, the National Association for Media Literacy Education (NAMLE) hosts a national conference every two years, with the next event scheduled for July 2011 in Philadelphia. An annual conference based in Washington, D.C. would support the increased visibility of digital and media literacy education among leaders in K–12 education at both the state and national levels. Because of rapid growth in this field, an annual conference is needed.

A national leadership conference with an educator showcase competition will substantially raise the visibility of digital and media literacy among policymakers, federal officials, and leading non-profit and charitable organizations. It could help bring new leaders into the field and enable the membership organization to sustain a full-time executive director. This organization could easily triple its membership within one year with an annual national leadership conference, especially if coordinated with a larger association like the National Council of Teachers of English (NCTE), the American Library Association (ALA) or the International Society for Technology Education (ISTE). This should be combined with a visibility campaign targeted to reach college and university faculty, K–12 educators, media professionals, youth media advocates, and other stakeholders with interests and experience in digital and media literacy. A major philanthropy or charitable foundation should support NAMLE over a three-year period in order for it to position itself as a unifying force for digital and media literacy as a national and community education movement.

Who Should Do What

In order to review key action items, here is a summary of what each of the different stakeholders should do:

Executive Branch

The White House should raise visibility for digital and media literacy by asking Congress to support major initiatives in digital and media literacy. The President and First Lady could host a Rose Garden event that showcases the winners of the youth-produced PSA competition.

Congress

Congress should dedicate funding to support a network of in-school summer learning programs in digital and media literacy for public charter schools in low-income communities. This would help close the achievement gap. Direct federal funding should be used to build, sustain, and expand the national network. Federal investment could be matched one-to-one by university, local, state, and private dollars.

Congress should pass the Healthy Media for Youth Act (H.R.4925), which authorizes \$40 million annually to support educational programs in media literacy programs for children and youth.

Congress should dedicate 10 percent of Americorps funding to support the development of a DML service outreach program that offers training and professional development in digital and media literacy to a group of recent college graduates and places them, in teams, to work in public libraries, school libraries and technology centers, local public access centers, and other community non-profit organizations.

U.S. Department of Education

The Department of Education should initiate funding to support an online test requiring no more than 30 minutes to complete that could measure students' ability to (a) use digital tools; (b) identify the author, purpose and point of view of messages in print and digital formats; (c) engage in ethical reasoning about social responsibility as producers and consumers; (d) make judgments on the credibility of information sources; and (e) create simple media composition activities using language, images and sound.

Federal support for the development of an online video documentation tool is needed. Such a database would dramatically improve knowledge of "best practices" in teacher education for digital and media literacy education.

The Department of Education should support research on district-level teacher education initiatives in digital and media literacy to help develop a rigorous base of scholarship to support the field.

State Governments

State departments of education should make available a competitive pool of monies exclusively for university and college partnerships to support cross-disciplinary teacher education programs in digital and media literacy education. This would enable intensive collaboration between faculty and students in education and communication/media studies programs to support in-school community education programs in digital and media literacy.

States should make available matching funds, on 2:1 match basis, for school districts that invest in teacher education programs in digital and media literacy.

Local Governments

School districts should dedicate funding to support a fast-track, 12-month coordinated staff development program at the district level. Training should make use of the instructional practices of digital and media literacy education. School districts could offer opportunities to “catalyst teachers” who would participate in ten full days of professional development in partnership with a college or university over the course of an academic year. Some of this training should be offered online.

Each local government should assemble a small community leadership panel with interests in digital and media literacy education. In each participating community, a local group should be charged with mapping a community’s existing programs in digital and media literacy, with a special focus on youth media programs.

Libraries and Museums

The Institute of Museum and Library Services (IMLS) and the American Library Association should coordinate a DML service outreach program to host a “Silver Surfers Week,” a library-based program designed to support the development of digital and media literacy competencies among Americans ages 55 and older.

Local libraries should host community screenings featuring the local youth media producers who contributed to statewide competition. In larger cities, a social media website could showcase all entries and offer localized “one-stop shopping” style information about digital and media literacy concepts that can be effective in the home and community.

Federal Communications Commission

The FCC can informally encourage media companies to support an entertainment-education campaign to target an ethically problematic but common online behavior (like teasing, spying, harassment, intolerance, cyber bullying or sexting) for exploration in sub-plots of prime-time programming.

A website that archives and offers examples of this programming could help parents and educators use TV clips to promote discussion and extend the learning experience in the home and classroom.

Philanthropies and Charitable Foundations

Support for local government is needed to map a community's existing programs in digital and media literacy, with a special focus on youth media programs for underserved populations.

Support for the development of an online video documentation tool is needed. Such a database would dramatically improve knowledge of "best practices" in teacher education for digital and media literacy education.

Foundations should support research on district-level teacher education initiatives to help develop a base of scholarship to support the field.

A marketing/visibility campaign is needed to target college and university faculty, K–12 educators, media professionals, youth media advocates, and other stakeholders with interests and experience in digital and media literacy. A major philanthropy or charitable foundation should support NAMLE over a three-year period in order for it to position itself as a unifying force for digital and media literacy as a national and community education movement.

A foundation should provide support for research that measures the impact of an entertainment-education campaign, demonstrating how mass media can support knowledge and skill development in digital and media literacy.

News Media Organizations

Using a host of innovative online news tools already on the market that help teachers and students to use and analyze news and current events as part of general education, companies should offer modest grants to support partnerships with key educational groups. School districts, community colleges, museums, libraries, colleges and universities could be invited to apply for these funds, which would support teacher education and outreach activities.

ISPs and Technology Companies

Support is needed for professional membership associations to develop a national leadership conference with an educator showcase competition to raise the visibility of digital and media literacy among policymakers, federal officials, and leading non-profit and charitable organizations.

The Creative Community

The creative community should host an entertainment-education collaboration over a four-year period to integrate exploration of ethical and social responsibility issues as they relate to digital media. The goal would be to integrate social norms about responsibilities and rights of producers and consumers into prime-time program sub-plots, scenes, and dialogue.

Youth Media Organizations

Working collaboratively, youth-oriented media organizations should host an annual statewide PSA competition, inviting video, audio or script/storyboard submissions from youth media organizations, public access centers, and individuals. Winners would attend a White House event recognizing their achievements.

Professional Membership Associations

Working collaboratively and with support from charitable foundations, professional organizations should develop an online video documentation tool so that educators and researchers can upload clips of their own teaching practices and download clips for use in teacher education.

Working collaboratively, professional organizations should develop a national leadership conference with an educator showcase competition to raise the visibility of digital and media literacy among policymakers, federal officials, and leading non-profit and charitable organizations.

Public Television and Local Community Access Centers

Statewide competitions of youth-produced works will result in winning entries in each of the 50 states, which should be distributed via both local access and public television stations across each state.

Conclusion: Imagining the Future

A global movement for digital and media literacy education is developing all over the world (Frau-Meigs & Torrent, 2009). For example, in the European Union, media literacy has been identified as a priority for the 21st century. Media literacy encompasses all media, including television and film, radio and recorded music, print media, the Internet and all other new digital communication technologies. It is a fundamental competence not only for the young generation but for people of all ages, for parents, teachers and media professionals. This issue is seen as so critical to the development of European social and cultural development that by 2011, all the countries of the European Union will have developed preliminary metrics to measure the levels of media literacy among their citizens.

Here in the United States, we are finally beginning to move beyond the “gee whiz” phase that’s been keeping us drooling over the just-beyond-the-horizon transformative potential of the Internet, hungry for the latest game, gadget or online widget to change our lives.

It is now time for Americans to pay equal attention to the human competencies and skills that people use when becoming effective authors, audiences and active participants in the digital age.

Many educators have been wary of the well-publicized hype about the unsubstantiated benefits of digital media in education because of their own real-life experience spending six hours a day with children and teens whose lives are more or less infused with cell phones, iPods and laptops. They know that simply using digital media tools is no educational panacea. A recent study of students in grades 5–8 showed that those from disadvantaged families got lower math and reading scores once the Internet arrived in the home. Analyzing the test scores of over 150,000 students in North Carolina, Duke University researchers compared children’s reading and math scores before and after they acquired a home computer and compared those scores to those of kids who never acquired a home computer (Vigdor & Ladd, 2010). The test scores of low-income kids who got computers at home declined more than children who did not get computers. For middle-school students, social networking, YouTube videos and online games can be a potent distraction from homework and other activities.

Even young people themselves are recognizing some limitations of life online. Some are concerned that screen interaction will replace face-to-face social relationships and others wonder if online civic acts are merely “token activism,” creating an illusion of civic engagement while actually distancing people from their causes. “Such nuanced stances reveal that teens and adults are engaged in thoughtful consideration of the civic potentials of online life” (Global Kids, The Good Play Project and Common Sense Media, 2009, p. 17).

Generation after generation, we keep having to discover the obvious: technology itself is no savior. Cell phones, video games, social networking, electronic whiteboards and the Internet will not automatically improve education, any more than radio or television did. Although children and young people are using digital media, they are not necessarily becoming either smarter or more digitally literate. Novel forms of digital technologies may actually widen the achievement gap by offering potent time-consuming distractions that interfere with homework and other activities. We must not confuse just owning technology, playing video games, or using online social networks with having the habits of mind, knowledge, skills and competencies needed to be successful in the 21st century. As the Duke University study showed, computers at home are used primarily as an entertainment device unless an active, learning-oriented approach is cultivated.

Fortunately, it is possible to imagine that, in the next few years, our appreciation of the delicate balance of protection and empowerment will lead us to better

manage our “constantly connected” lives. When digital and media literacy become a fundamental part of contemporary education both in and out of schools, we will achieve these results:

- Parents will pay attention to why and how screen media is used by their children and teens at home and balance on-screen activities with other forms of play and learning to both protect and empower children and youth.
- People of all ages will internalize the practice of asking critical questions about the author, purpose and point of view of every sort of message—whether it be from political campaigns, pharmaceutical advertisements, reports and surveys issued by think-tanks, websites, breaking news, email, blogs, or the opinions of politicians, pundits and celebrities.
- Teachers will use engaging instructional methods to explore the complex role of news and current events in society, making connections to literature, science, health and history, building bridges between the classroom and the living room that support a lifetime of learning.
- People of all ages will be responsible and civil in their communication behaviors, treating others with respect and appreciating the need for social norms of behavior that create a sense of personal accountability for one’s online and offline actions.
- As a fundamental part of instruction, students will compose and create authentic messages for real audiences, using digital tools, images, language, sound and interactivity to develop knowledge and skills and discover the power of being an effective communicator.
- People from all walks of life will be able to achieve their goals in finding, sharing and using information to solve problems, developing the ability to access, analyze, evaluate, communicate and share ideas and information, participating in meaningful social action in their neighborhoods, communities, nation and the world.

In the process, teamwork, collaboration, reflection, ethics and social responsibility will flourish. Teachers will not have to complain about a generation of young people who lack the ability to identify appropriate keywords for an online search activity, those who are not aware of which American city was devastated by Hurricane Katrina, and those who cannot identify the author of a web page.

Media professionals in news and journalism, digital media, advertising, and cable and broadcast television are beginning to recognize that everybody wins when consumers are more active, engaged, intentional and strategic about their media use habits. When people have high expectations for the quality of news and entertainment, there will be more opportunity to produce quality products. By working together to build coalitions and partnerships, we must support digital and media literacy as a community education movement for all people in the United States.

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APPENDIX



Portraits of Success

Dozens of digital and media literacy programs are taking hold across the nation and around the world. The following portraits of success offer some illustration of the many creative initiatives that bring together diverse stakeholders. This list, assembled from information provided by the author and the organizations' websites, is intended to illustrate the variety of programs engaging people of all ages in acquiring the critical skills for digital citizenship.

Adobe Youth Voices Launched in June 2006 by the Adobe Foundation, Adobe Youth Voices is designed to provide youth in underserved communities with the critical digital communication skills they need to become active and engaged members of their communities and the world at large. Participating youth ages 13 to 18 use cutting-edge multimedia tools to create videos, animations, photo essays, presentations, music and other pieces and share their ideas about topics that concern or interest them, such as peer pressure, religious and cultural identity, substance abuse, environmental degradation and the impacts of war. These works are then shared through Youth Voices' global network of over 500 participating sites, grantees and organizations in 32 countries that engage youth and educators in schools and out-of school programs. Visit <http://youthvoices.adobe.com/about>

BBC School Report One of the most ambitious news literacy programs ever developed is the BBC "School Report" project. This program enables 25,000 children in more than 700 U.K. schools to learn about the practice of journalism and news production. Children develop community-based television and radio news reports that air locally and nationally during a specific time period. School Report's mission is to engage young people with news, bring their voices and stories to a wider audience and share some of the public service values behind content creation, such as fairness, accuracy, and impartiality, since so many young people are content creators and distributors. The main aim of BBC News School Report is to interest young people in news of all sorts, and the world around them, by giving them the chance to make their own news. The program helps students develop skills of gathering information, teamwork and time management, while providing an opportunity to discuss the responsibilities involved in broadcasting to a worldwide audience. Visit http://news.bbc.co.uk/2/hi/school_report

Center for News Literacy The Center for News Literacy at Stony Brook University teaches students how to use critical thinking skills to judge the reliability and credibility of news reports and news sources. The Center recruits experienced journalists in career transitions to be News Literacy Fellows for two years and works with them to launch new undergraduate courses with curricula that meet the needs of

the host universities. With initial funding from the John S. and James L. Knight Foundation, the Center also is at work developing curriculum materials for high schools and the general public and a National News Literacy website through which students can collaborate on news literacy projects. Visit <http://www.stony-brook.edu/journalism/newsliteracy>

City Voices, City Visions Since 2000, the University at Buffalo's Graduate School of Education has been working in collaboration with the Buffalo Public Schools to help bring digital and media literacy to teachers and students through the project City Voices, City Visions (CVCV). CVCV promotes student academic achievement and empowerment through the use of digital video tools and an emphasis on visual and analytic thinking and understanding. The program includes professional development for urban teachers to learn the use of digital video arts and communication technologies to help students meet higher learning standards in literacy and the academic disciplines. CVCV publishes and archives digital videos produced by students and teachers as curriculum and community resources. Visit <http://gse.buffalo.edu/org/cityvoices>

Common Sense Media This San Francisco-based non-profit organization provides independent information and tools about media and technology in the home so that families can make informed choices and have a voice about the media they consume. The Common Sense Media website includes reviews and ratings of movies, games, mobile apps, websites, books and music by professional reviewers, parents and kids. There are also resource materials specifically designed for parents and educators. Visit <http://www.common sense media.org>

DigMe The Digital Media (DigMe) Program at Roosevelt High School in Minneapolis uses digital media to help urban high school students learn to think critically, build meaning and demonstrate their understanding across the subjects. The curriculum is based on the national standards in Media Literacy and 21st Century Skills. Students participate in daily reading, writing, analyzing, and discussion activities, and design and produce projects that demonstrate learning in a variety of ways, often using digital media tools. The school partners with faculty from the University of Minnesota from the fields of education, new technologies and journalism. They aim for strong school-to-work connections by establishing relationships and internships with local technical schools, artists, studios and businesses in the field of new media and digital media. Visit http://roosevelt.mpls.k12.mn.us/Digital_Media.html

Finding Dulcinea This website addresses the "context deficit" that occurs with online searching. The name of the website is a reference to Miguel Cervantes'

classic work of fiction, the hero Don Quixote searches for an imaginary, idealized woman named Dulcinea. The website offers a section, “Behind the Headlines,” which provides contextual background information on news and current events, while another section, “Suspicious Sites,” offers an analysis of how sites with inaccurate and misleading information can be made to seem credible. Visit <http://www.findingdulcinea.com>

Global Kids This organization uses digital media to promote global awareness and youth civic engagement. Students develop digital literacy competencies, engage in substantive online dialogues and participate in civic action. For example, in the Virtual Video Project, students learn about critical human rights issues and filmmaking and then create educational “machinima”—short animated films created using virtual worlds—to promote awareness and action. Visit <http://www.globalkids.org>

IFC Media Project This television series airs on the Independent Film Channel (IFC). This documentary series examines America’s news media and seeks to uncover the truth about the news. In its first two seasons it was hosted by award-winning journalist Gideon Yago and featured in-depth reporting on controversial topics facing today’s media, including how the U.S. is portrayed in world media and the impact of the economic downturn on the news industry. Visit <http://www.ifc.com/about>

Kids Voting A media education program that gets students involved in civics, this program offers K–12 curriculum for use during an election campaign. The program integrates civics education and preparation for voting with newspaper reading and media analysis. The program now reaches an estimated 4.3 million students, 200,000 teachers, 10,600 schools, and 20,000 voter precincts. Students are encouraged to analyze and critique political advertisements, news stories, and candidate debates. Careful studies of Kids Voting show that after children are involved in the program, there are strong increases in reading newspapers, paying attention to campaign and related news on television, and discussing campaign-related issues with peers and parents (McDevitt & Chaffee, 2000). Visit <http://www.kidsvotingusa.org>

Know the News Developed by Link TV, Know the News is an online learning tool for journalism students and citizen journalists, exploring the issues that shape television news, including bias, authorship, authenticity, ethics, and media ownership. Funded by the John S. and James L. Knight Foundation, the website is designed to help users think critically about TV news by framing news coverage in a global context based on Link TV’s original productions, *Global Pulse* and *Latin*

Pulse, which compare, contrast and analyze news coverage from more than 70 broadcasters worldwide.

National Association for Media Literacy Education (NAMLE) This national membership organization is dedicated to ensuring that all people have the skills needed to critically analyze and create messages using the wide variety of communication tools now available. NAMLE brings together a broad-based coalition of media literacy practitioners and advocates from diverse fields, professions, and perspectives in a national, non-profit membership organization to act as a key force in bringing high quality media literacy education to all students in the United States, their parents, teachers, health care providers, counselors, clergy, political representatives, and communities. It holds conferences every two years and publishes an online, open access, peer-reviewed journal, the *Journal of Media Literacy Education*. Visit <http://namle.net>

National Writing Project The NWP is a nationwide network of educators working to improve the teaching of writing and learning in the nation's schools and communities. They provide high-quality professional development programs to teachers across disciplines and at all levels, from early childhood through college. NWP's national network includes more than 200 university-based sites located in all 50 states. They have begun to explore digital and media literacy with a special program for their members called "Digital Is" where educators share work and practice and think across a variety of learning environments about elements that support effective digital writing and learning for students. Visit <http://www.nwp.org>

Powerful Voices for Kids This university-school partnership is a collaborative program supported by the Media Education Lab at Temple University's School of Communications and Theater and the Russell Byers Charter School in Philadelphia. The program offers a comprehensive media literacy and technology integration program for children ages 5–12 that includes a 4-week summer learning program for children, a staff development program for educators, in-school and after-school mentoring, and a research and assessment component. The program is designed to strengthen 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. Evidence from the program reveals statistically significant gains in children's ability to identify the author, purpose and target audience of a media message. Visit <http://mediaeducationlab.com/powerful-voices-kids>

Project Look Sharp Developed at Ithaca College, this program provides materials, training and support for the effective integration of media literacy with critical

thinking into classroom curricula at all education levels. They offer professional development programs to educators across the state of New York, working in close coordination with the local school districts in the surrounding communities. Their multimedia materials enable social studies and science teachers to integrate critical analysis of news media into the K–12 curriculum. For example, Media Construction of War includes a 125-page kit that analyzes *Newsweek* magazine’s coverage of the Vietnam War, Gulf War and the war in Afghanistan. The kit includes three dozen slides of carefully-selected *Newsweek* covers with teacher guides for each, histories of all three wars, a 12-minute video and a lesson plan on media coverage of the Persian Gulf War. Students score information about the wars in Vietnam, the Persian Gulf, and Afghanistan while examining how media influences public opinion of current events and how to ask key media literacy questions about author, purpose and point of view. Visit <http://www.ithaca.edu/looksharp>

Project New Media Literacies Located at USC’s Annenberg School for Communication, this program explores how to best equip young people with the social skills and cultural competencies needed for full participation in an emergent media landscape. They have developed resources for both in and out of the classroom for educators and learners who are interested in further understanding the new media literacies and integrating them into their learning environments. Visit <http://newmedialiteracies.org>

Salzburg Academy on Media and Global Change This summer education program gathers 60 university-level students and a dozen faculty from five continents for three weeks in Austria. The program explores media’s role in global citizenship, examining these questions: “How do news media affect our understanding of cultures and politics?” and “How can media better cover global problems and report on possible solutions?” The program was created by the International Center for Media and the Public Agenda, an academic institute based at the University of Maryland. Students and faculty work together to create a series of curriculum materials to explore the intersections of global media, freedom of expression, and civil society. The first half of the curriculum emphasizes basic media literacy skills—comprehension, analysis, and evaluation. Students learn to identify what news is and how media, as well as other actors, decide what information matters. They monitor, analyze and compare media coverage of people and events and understand media’s role in shaping global issues. The second half of the curriculum highlights the connections between media literacy and civil society and informs individuals about the importance of exercising their rights to freedom of expression. Visit <http://www.salzburg.umd.edu/salzburg/new>

Silver Surfers Day In England, the Office of Communications, the British national government agency responsible for communications regulation, hosts a national

event, Silver Surfers Day, with more than 1,500 events across the country specifically for people aged 55 and older to get a gentle introduction to the Internet. Participating businesses and organizations in the community determine how they will participate and what events they will offer. Older adults may learn about sharing photos, online banking, finding health care information or other activities tailored to their needs and interests. Visit <http://silversurfers.digitalunite.com>

St. Louis Gateway Media Literacy Partners This collaborative partnership brings together educators, parents, media professionals and citizens in the St. Louis metropolitan area. For four years, they have hosted Media Literacy Week, which offers a myriad of public events supported by nearly a dozen community organizations, including universities and colleges, school districts, non-profit organizations and health care organizations. The partnership helps spread the word on the importance of media literacy and media literacy education, including the connection between digital and media literacy skills and economic development, with partners sharing the costs of developing programs and services for the community. Their citizen base includes public and private pre- K–12 teachers, parents and administrators; higher-education faculty and administrators from various academic disciplines; after-school program leaders and employees; arts and culture leaders; health and allied-health professionals; media businesses; media communicators and producers; public-policy makers; public and private librarian-technologists, and business professionals. Visit <http://www.gmlpstl.org>

The News Literacy Project This is an educational program that is bringing experienced journalists into middle school and high school classrooms to teach students the critical thinking skills they need to be smarter and more frequent consumers and creators of credible information across all media. Students are learning how to distinguish verified information from raw messages, spin, gossip and opinion and are being encouraged to seek news and information that will make them well-informed citizens and voters. The project was founded in early 2008 by Alan Miller, an investigative reporter for the *Los Angeles Times*, after speaking to his daughter's Bethesda, Md. middle school class about why journalism matters. Visit <http://www.thenewsliteracyproject.org>

Youth Media Reporter YMR is a professional multimedia journal that serves practitioners, educators and academics in the youth media field. The journal helps to build the field by documenting the insights and leading lessons in engaging young people in video, film, television, radio, music, web, art, and print. Managed by the Academy for Educational Development and supported by the Open Society Institute and the McCormick Foundation, YMR is a multi-media web journal that publishes 6–8 high quality articles every other month. Visit <http://www.youthmediareporter.org>

About the Author

Renee Hobbs has spent a lifetime helping educators around the nation and around the world to integrate digital and media literacy into education through research, curriculum development and advocacy.

She is a Professor of Communication at Temple University's School of Communications and Theater, where she founded the Media Education Lab in the Department of Broadcasting, Telecommunications and Mass Media. Over her career, she has contributed dozens of scholarly articles, multimedia curriculum resources and professional development programs to advance the quality of media literacy education in the United States and around the world.

Hobbs is a field builder. She created the first national-level teacher education program for the media literacy movement in 1993 at the Harvard Graduate School of Education. She helped create the Partnership for Media Education, which evolved into the National Association for Media Literacy Education (NAMLE), the national membership organization for media literacy. She served as president in 1998. She is co-editor of the *Journal for Media Literacy Education*, an open-access, online, peer-review journal. She also created *Assignment: Media Literacy*, a comprehensive K–12 curriculum and staff development program for media literacy sponsored by Discovery Communications and the Maryland State Department of Education.

In 2008, Renee collaborated with Philadelphia school leaders to create Powerful Voices for Kids, a university-school partnership to address the needs of low-income and minority children in terms of media, technology and digital learning. Powerful Voices for Kids is a comprehensive program for elementary schools that offers a summer enrichment program for children, staff development for educators, hands-on mentoring and curriculum development support for teachers, and a program of research designed to develop alternative assessment methodology to document the development of children's critical thinking and communication skills.

Hobbs' scholarly work explores the intersection of the fields of media studies and education. Her book *Teaching the Media: Media Literacy in High School English* (Teachers College Press, 2007) provides the first large-scale, empirical evidence of the impact of media literacy education on reading comprehension skills. Exploring the value of online games for learning, and with support from the U.S. Office on Women's Health, she created My Pop Studio (www.mypopstudio.com), a free, award-winning multimedia edutainment website that introduces tween girls to media literacy concepts by taking them "behind the scenes" of popular music, television, magazines, and online media where they can compose their own music, comics, and movie trailers.

In 2007, Renee became the recipient of a research grant from the John D. and Catherine T. MacArthur Foundation with her colleagues Pat Aufderheide and Peter Jaszi at American University in Washington, D.C. to work on copyright and fair use issues in media literacy education. Her book *Copyright Clarity: How Fair Use Supports Digital Learning* (Corwin/Sage, 2010) helps teachers understand their rights and responsibilities under copyright law as it applies to digital learning.

Teachers benefit from instructional strategies that help them explore the power of mass media and social media as tools for learning. With support from PBS, she created *Access, Analyze, Act: A Blueprint for 21st Century Civic Engagement*, an interactive website for teachers designed to strengthen their ability to teach about the 2008 presidential election using news and social media tools developed by the PBS community.

The Aspen Institute Communications and Society Program

www.aspeninstitute.org/c&s

The Communications and Society Program is an active venue for global leaders and experts to exchange new insights on the societal impact of digital technology and network communications. The Program also creates a multi-disciplinary space in the communications policy-making world where veteran and emerging decision-makers can explore new concepts, find personal growth, and develop new networks for the betterment of society.

The Program's projects fall into one or more of three categories: communications and media policy, digital technologies and democratic values, and network technology and social change. Ongoing activities of the Communications and Society Program include annual roundtables on journalism and society (e.g., journalism and national security), communications policy in a converged world (e.g., the future of international digital economy), the impact of advances in information technology (e.g., "when push comes to pull"), and serving the information needs of communities. For the past three years, the Program has taken a deeper look at community information needs through the work of the Knight Commission on the Information Needs of Communities in a Democracy, a project of the Aspen Institute and the John S. and James L. Knight Foundation. The Program also convenes the Aspen Institute Forum on Communications and Society, in which chief executive-level leaders of business, government and the non-profit sector examine issues relating to the changing media and technology environment.

Most conferences utilize the signature Aspen Institute seminar format: approximately 25 leaders from a variety of disciplines and perspectives engaged in roundtable dialogue, moderated with the objective of driving the agenda to specific conclusions and recommendations.

Conference reports and other materials are distributed to key policymakers and opinion leaders within the United States and around the world. They are also available to the public at large through the World Wide Web, www.aspeninstitute.org/c&s.

The Program's Executive Director is Charles M. Firestone, who has served in that capacity since 1989, and has also served as Executive Vice President of the Aspen Institute for three years. He is a communications attorney and law professor, formerly director of the UCLA Communications Law Program, first president of the Los Angeles Board of Telecommunications Commissioners, and an appellate attorney for the U.S. Federal Communications Commission.