Comments by the American Library Association on the National Education Technology Plan

Submitted to the Department of Education

May 17, 2010

Introduction:

The American Library Association (ALA), the world's oldest and largest professional library association, is pleased to comment on the National Education Technology Plan (NETP). There are over 99,000 school libraries across the country. These include libraries in public and private schools and libraries in schools on Tribal lands. Though the NETP is primarily concerned with the education of K-12 students, public libraries are also critical support mechanisms for educators, parents, and students. Academic libraries, including community college libraries, also support students as they leave the K-12 setting to pursue further educational opportunities. The expertise of the library community is a valuable resource for the Department of Education as it begins to implement its vision of education for the 21st century. ALA applauds many of the NETP's recommendations and offers suggestions that address issues raised in the NETP.

The NETP presents an extensive set of recommendations to reinvigorate the American public education system. The development process of the NETP and subsequent call for public comment on the NETP website mirrors the Department's goals of meaningful and innovative uses of technologies to increase collaboration and productivity. The NETP presents a number of significant challenges that will take the coordinated effort of many stakeholders to overcome. By inviting stakeholders from varied disciplines and industries to offer their expert opinions in how best to proceed with incorporating technology into K-12 education, the Department has paved the way for successful implementation of many of the recommendations made in the NETP.

Today's students face considerable challenges as they enter a highly competitive job market upon graduation from high school or a post-secondary institution. Mandatory online activities often include the need to be able to navigate a government website, apply for a job, search for housing, pay bills, communicate with schools, and connect with healthcare providers, among other common life-maintenance tasks. Today it is virtually impossible to be civically engaged without going online. Being able to use information in a variety of formats (e.g., print, video, audio, and online resources) to create and share new media content is now essential for professional success. The influx of technology into everyday life as well as in the job market has

exacerbated the need for students to develop critical thinking skills and digital literacy skills in order for them to succeed in the 21st century's knowledge-based, global economy.

Libraries of all types – academic, public, and school – echo the sentiment stated in the NETP that "education is the key to America's economic growth and prosperity and to our ability to compete in the global economy."[1] School libraries, part of the education ecosystem, are poised to support the development of "inquisitive, creative, resourceful thinkers; informed citizens; effective problem-solvers; groundbreaking pioneers; and visionary leaders."[2] School librarians understand that access to information and creative learning experiences are only part of the success equation. Students must have the skills necessary to utilize the many resources provided them in and outside of the classroom. Today's graduates must be able to access, process, and utilize information found in a variety of formats. They must be able to create and then share the new knowledge they build. These skills are part of information literacy – and something the school library community is uniquely prepared to deliver. Without these critical information literacy skills, including digital literacy skills, our K-12 students will not be able to use the technologies available to them productively upon graduation as they enter post secondary programs and eventually enter the 21st century workforce.

School libraries are an important resource that should be leveraged as recommendations in the NETP are acted upon at the state and local level. Libraries of all types are products of their local communities and are well versed in identifying and responding to the unique needs of their respective host institutions and communities. In addition to being versed in local concerns, school librarians are at the forefront of creative, meaningful, ethical, and innovative technology integration in many schools throughout the country. "School librarians bring pedagogical order and harmony to a multi-media clutter of information by crafting challenging learning opportunities, in collaboration with classroom teachers and other learning specialists, to help learners use the virtual world, as well as traditional information sources, to prepare for living, working, and life-long learning in the 21st century."[3]

For example, the school librarian was integrally involved in the creation of a 3-D research and learning lab in Chesapeake High School, Baltimore County, Md. Students combine traditional research done in the school library with virtual learning environments in the newly established learning lab. Additionally, students will be able to video conference with engineers to discuss lab results. Student enrollment has increased at the high school as a result of this innovative program.[4]

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[1] National Education Technology Plan, (p. 1). http://www.ed.gov/sites/default/files/NETP-2010-final-report.pdf.
[2] Ibid.
[3] Todd, R.J. and Gordon, C.A. (2010). *School Libraries, Now More than Ever: A Position Paper of the Center for International Scholarship in School Libraries.* (p. 1). Available at: http://cissl.scils.rutgers.edu/.
[4] Baltimore Debuts Virtual Lab. (2009). *School Library Journal,* 55(10), p12.

School librarians help students navigate the challenges related to Web 2.0 applications and online social networks by incorporating them into concrete learning experiences. The school librarian at John Glenn High School in Indiana models the importance of sharing in the learning community, by inspiring learners to create and post book and video reviews and recommendations to the school's online catalog. Modeling new strategies in the business and professional worlds, she is also responsible for guiding students in the use of Google Docs to encourage collaboration and to allow learners to work on projects anywhere/anytime without having to worry about platform compatibility and time/space constraints.[5]

Learning experiences coordinated between the classroom teacher and the school librarian can motivate students to move beyond basic requirements by engaging them with challenging learning opportunities enhanced through technology. For example, the school librarian at Springfield Township in Pennsylvania regularly develops lessons in collaboration with classroom teachers that support innovative and creative student work using new tools for learning. Student research, maintained in knowledge-building tools like wikis and Google Sites, becomes transparent and interactive. In one lesson on the Great Depression, inspired by oral histories and photographs in Library of Congress collections, history students produced *found poetry* and digital stories. Students shared all their work in a wiki-based history museum. These students learned how to use primary sources to support original research, develop multi-media presentations, and collaborate with peers for audiences reaching well beyond than their teachers' eyes.[6]

As technology continues to advance and permeate the K-12 educational system, it will become even more incumbent upon the education community to design strategies that successfully support 21st century learners. The school librarian, as an expert in new and emerging information and communication tools, intellectual property issues, and opportunities (including new interpretations of fair use and use of Creative Commons licensing), issues of intellectual freedom and equitable access, and information literacies (now often referred to as *transliteracies*) is a critical team member and often, the team leader. Retaining the expertise of the school librarian and ensuring state and local support for the inclusion of the school library as an integral part of the school ecosystem will result in a robust educational system.

ALA appreciates the recognition in the NETP that its successful implementation is dependent on partnerships and collaboration among a variety of local, state, and federal entities as well as groups from the private and non-profit sector. Additionally, ALA reiterates the importance of leadership from all segments of the education system. School librarians collaborate regularly with teachers and administrators, bringing the added benefit of working with students across grade levels. Including school librarians in the discussions of how to incorporate meaningful

[5] Personal email correspondence, April 13, 2010.
[6] Project wiki available at: http://depressionphotographs.wikispaces.com/.

uses of technology into the education system will help ensure effective and sustainable decisions are made and implemented successfully.

ALA respectfully suggests that success hinges on incorporating the expertise of the school librarian at the local level and the expertise of the American Association of School Librarians, the division within ALA dedicated to the issues of the school library community, for a national perspective (http://www.ala.org/ala/mgrps/divs/aasl/index.cfm).

ALA offers comments about the NETP on section 1.0 Learning, 3.0 Teaching, 4.0 Infrastructure, and briefly, on 5.0 Productivity. Within each section comments address the overarching principles illustrated by providing examples of the role the school librarian can play in helping the Department achieve its vision for the specific recommendations.

1.0 Learning:

With the introduction of technology, specifically interactive, social technologies, the nature of learning is in the process of changing and there is wide recognition that today, even more than prior to the large-scale adoption of technology among young people, robust learning does not stop when the dismissal bell rings. Homework assignments in many cases involve the use of the Internet for research, project development, and student collaboration or a computer for basic word processing. In addition to formal assignments, many students are actively engaged in informal learning experiences made possible via technology applications and devices. Use of technology outside of school varies depending on availability and socio-economic status. Devices such as cell phones, however, play an important role in bridging the digital divide. A Pew Study reports that 41 percent of teens from households earning less than $30,000 annually go online with their cell phones and twenty-one percent of teens who do not otherwise go online do so with their cell phones.[7] Students participate in online social networks, collaborate across geographical boundaries, create digital content, and readily share information with peers via mobile devices or desktop and laptop computers. Fifty-seven percent of teens who use the Internet have created and shared some kind of content.[8]

During school hours, many innovative technology uses in schools take place in the school library or are originated by the school librarian.[9] For example, school librarians in many instances are early adopters of the new social media and are devising programs that include Web 2.0 applications.[10] This provides teachers and students an opportunity to explore the possibilities

[7] http://www.pewinternet.org/Reports/2010/Teens-and-Mobile-Phones.aspx?r=1
[8] http://www.pewinternet.org/Reports/2005/Teen-Content-Creators-and-Consumers.aspx
[9] See *School Library Websites Part 1: A tour of high school practice*, available at: http://www.schoollibraryjournal.com/blog/1340000334/post/1430054143.html. For specific examples of school librarians as technology leaders in their schools see: http://www.voya.com/2010/03/30/tag-team-tech/ and http://schoollibrarywebsites.wikispaces.com/.
[10] For an example of early technology adoption and use see: *MySpace can be Our Space*, available at http://www.schoollibraryjournal.com/article/ca6330760.html.

these social technologies offer under the skilled guidance of the school librarian.[11] Libraries of all types are incorporating technology into traditional library service recognizing that technology use and learning is not a trend, but an essential component of 21st century life. School librarians are well situated to keep pace with new technologies and evaluate which are most likely to support learning in their individual schools. As technology use becomes more commonplace in schools, the school library can play an integral role in helping to keep teachers and administrators apprised of new applications and their potential for enhancing classroom curriculum. The library community is making every effort to understand the impact of technology use on learning whether it is in the formal K-12 setting, the academic library, or the public library serving life-long learners.[12]

Libraries offer wraparound services starting in the pre-school years, during the formal school years, and outside of school, the public library supports continued access to information resources. Many public libraries and school libraries work in tandem to support learning beyond the school walls and the school day. Partnerships include public libraries collaborating with teachers and school librarians in collecting resources that complement student research projects, offering online tutoring, and participating in classroom visits. These partnerships are crucial to ensuring student success. Libraries of all types uphold the notion that learning is life-long as well as the idea that information needs differ individual by individual. School librarians are trained to work with each student in order to guide their information seeking activities. Additionally, many school librarians are finding ways to extend the libraries' resources to be available on demand, outside of the school building so that students' information needs can be supported at the moment of need rather than after the learning moment has passed. Many school library online catalogs and databases can be accessed with a password from any computer or device with Internet access. Many school librarians create and maintain rich virtual libraries which present opportunities for hybrid instruction and learning well beyond traditional hours. A growing number offer presence and connections on social networks like Facebook, Flickr, and Twitter. School librarians are currently exploring opportunities for both synchronous and asynchronous support for learners. It is not uncommon for school librarians to organize virtual visits with authors and experts using tools like Skype.

School librarians work across grades and curricula and are skilled at working with a variety of learning styles and levels. Library materials and services are geared to meet students where they are intellectually, emotionally, and socially. School librarians address all three types of learning mentioned in the NETP: factual knowledge, procedural knowledge, and motivational engagement. Students in many school libraries today are exposed to technologies that enhance the research and fact-finding experience. School librarians develop scaffolds that support

[11] The Springfield Township High School Library website provides recourses designed to help teachers incorporate technology into classroom activities. See: http://newtoolsworkshop.wikispaces.com/.

[12] For a greater picture of how the library community envisions the future of library service see *Checking Out the Future: Perspectives from the Library Community on Information Technology and 21st Century Libraries*. Available at http://www.ala.org/ala/aboutala/offices/oitp/publications/policybriefs/ala_checking_out_the.pdf.

individual and collaborative learning – such as knowledge-building centers that guide students through the research process.

School librarians have always guided students in determining the validity of a resource, and in the digital environment this is even more important. School librarians develop digital curriculum-based guides, or pathfinders and share them on the library's webpage to augment the online databases readily available to students.[13] These collections of topical resources can include audio, video, print, digital databases, and Web 2.0 applications that students use to complete homework and classroom activities. Pathfinders are often combined with online instruction, documentation tools and guidance, and assessment tools developed collaboratively between classroom teachers and school librarians. When online projects are completed, these *knowledge-building centers* also archive and showcase artifacts of student work.

ALA commends the Department for recognizing the unique and significant challenges of creating an education system that serves historically underserved populations: low-income, minority, learners with disabilities, and non-native English speakers. Additionally the NETP brings attention to the Pre-K children, the adult workforce, and seniors. ALA has as its core mission working to ensure information is accessible to all, a sentiment that crosses all types of libraries and one that drives the development of library services and programs that meet the needs of our nation's varied population. One of the most effective ways of preventing a generation from being excluded from the benefits made possible through technology is to focus national, state, and local resources on supporting the work done in the classroom and in the school library to ensure that learners have both intellectual and physical access to information and to current tools for managing and using it.

3.0 Teaching:

The American Library Association (ALA) strongly supports the principles of connected teaching as put forth in the NETP. School librarians recognize the value of aggregating resources – both physical and intellectual – in order to make the teaching ecosystem more productive and student learning more effective.

Today, learning does not happen in a vacuum. Collaboration across disciplines is critical in order to address the learning needs of the students. Connected teaching implies that classroom teachers will work with their peers and other experts concerned with improving learning experiences of K-12 students. The school library has a built-in support mechanism in the local public library. Many school libraries partner regularly with the public library and encourage teachers to utilize the resources available at the public library to enhance school resources. For

[13] For examples of school library pathfinders see: http://mainesouthlibrary.wikispaces.com/Pathfinders and http://springfieldpathfinders.wikispaces.com/. Public libraries also support student learning with pathfinders. See http://www.imcpl.org/kids/guides/index.html for one example. Library science graduate students are increasingly trained to develop multi-media resources in preparation for future positions. See http://electronicmaterialsforyouth.wikispaces.com/.

example, when the fourth grade has a unit on state history, the school librarian and teachers can coordinate with the public library to make pertinent resources available for students. School librarians and the public librarians can develop a local peer network to share resources and expertise greatly benefitting the teachers and students but at little cost to the school.

School librarians provide a unique picture of learning across curricula but also across grade levels as they are responsible for instruction for the entire student body in their respective buildings. Many are naturally evolving into new roles as their school's instructional chief information officers. They function as scouts to connect new resources, strategies, and tools to existing curricula and standards. School librarians participate actively in providing professional development to meet the needs of busy classroom teachers in teaching and students of all needs and abilities. The school librarian's unique perspective can aid in assessing the strengths and shortcomings of current teaching strategies thus leveraging the resources available to individual schools and school districts as they move quickly to design more effective teaching strategies.

We are on the cusp of profound changes in what counts as text and how we view literacy. School libraries play a vital role in cultivating student *transliteracy*, the ability to read, write and interact across a range of platforms, tools and media from signing and speaking through handwriting, print, TV, radio and film, to digital social networks.[14] By teaching students how to use multiple forms of media as information sources and for content creation, school librarians can help students and teachers go beyond the traditional text-based research paper to create multidimensional representations of their learning that are transparent and reflective of today's participatory information landscape.[15]

School librarians eagerly participate in team initiatives and collaborate daily with teachers to create a robust curriculum that meet state curriculum standards but often go beyond the minimum requirement to provide enriched learning experiences for students across grade levels. "The school librarian collaborates with an instructional team of teachers and other learning specialists (such as reading, literacy, special needs and ICT leaders) to help students learn how to think critically, solve problems, make decisions, and be reflective through their engagement with diverse and often conflicting sources of information."[16] School librarians interact with students outside of a formal classroom setting and often engage students in individualized learning experiences based on research related topics of the students' own interests within core

[14] http://nlabnetworks.typepad.com/transliteracy/.
[15] See *Getting Started Keynote: The Wizard of Apps* for an example of authentic learning where students developed a multi-media keynote address for the 2009 K12 Online Conference. Available at: http://k12onlineconference.org/?p=443.
[16] Todd, R.J. and Gordon, C.A. (2010). *School Libraries, Now More than Ever: A Position Paper of the Center for International Scholarship in School Libraries.* (p.3). Available at: http://cissl.scils.rutgers.edu/.

curriculum.[17] School librarians are the natural guide for students as they develop their own interests in further depth and scope than may currently be possible in a formal classroom setting.

ALA concurs with the message in the NETP that there are some educators, including school librarians, whose understanding of and comfort with advanced technology applications is not necessarily evenly represented across the professions. In order for the potential to be maximized, both teachers and school librarians must be given the opportunity to improve their technological expertise. The connected teaching model provides such opportunities by encouraging individual schools and school districts to seek professional development opportunities for their staff on which their students depend. The entire school system benefits when those teachers and librarians are supported and encouraged to improve their own technology expertise. One of ALA's core missions is to provide its members with numerous opportunities to expand knowledge and expertise by networking with other library professionals both at conferences and through online collaborative networks. Additionally many online librarian communities are springing up on their own. For example, TeacherLibrarianNing is an online community focused on school librarians and other educators created for professionals to share resources and best practices as well as to ask questions of their peers (http://teacherlibrarian.ning.com/).

The connected teaching model also supports the concept that purchasing decisions include a cross section of the school community. As some of the primary users of technology in the school, school librarians should be included in these conversations. They can provide examples of ways students use technology to enhance learning and can address some of the barriers that prevent full exploitation of the benefits of technology use. The participation of school librarians will lead to more informed decisions on how to allocate increasingly finite resources most effectively.

There are multiple players involved in educating a student and there should be opportunities for these different people to collaborate, share experiences, and ask questions of a field of colleagues from related disciplines. Such collaboration will enrich the professional development of each participant resulting in better prepared professionals ready to meet the challenges and needs of today's students.

4.0 Infrastructure:

The American Library Association (ALA) commends the Department of Education for rightly acknowledging that an educational infrastructure includes "People, processes, learning resources, and policies… in addition to broadband connectivity, servers, software, management systems, and administrative tools."[18] A study on public library connectivity networks conducted by ALA's Office for Information Technology Policy (OITP) found successful libraries had:

[17] Elementary students multi-media projects posted on the school library website provide examples of moving beyond standard curriculum. See: http://mckilloplibrary.edu.glogster.com/USS-McKillop-Student-Projects-1/.
[18] National Education Technology Plan (p. 51).

effective leadership, a clear vision, a champion and other advocacy for the vision, strong partnerships, demonstration models, a solid technical plan, and training for staff. [19] As the Department develops specific strategies to create an infrastructure for learning, ALA respectfully suggests that this public library model could be adapted to meet some of the needs of the education community at the state and local level. The model supports the infrastructure concept put forward in the NETP and can provide some understanding of the processes necessary to successfully develop and implement a learning infrastructure.

ALA concurs with the Department that the recommendations in the NETP rely to a certain extent on the success of the broadband initiatives of the American Recovery and Reinvestment Act of 2009 and the Federal Communications Commission's National Broadband Plan. ALA recognizes that ensuring broadband access to schools, libraries, and other community anchor institutions addresses many issues that challenge the nation's ability to compete in the 21st century global economy. Civic engagement, economic development, and educational opportunities are all dependent on a sustainable broadband ecosystem of which the education and library communities play an integral role in supporting. As schools move toward making 24/7 learning more common, there needs to be a recognition that this will challenge some students' ability to keep up with their peers simply because they do not have access to home broadband. The public library supports these students as well as students who may not have a robust enough home connection to effectively participate in online activities. Just as the physical infrastructure for schools must support multiple users and heavy bandwidth use, so must public library infrastructure. It is critical to move the agenda of the NETP forward that build-out to schools, public libraries, and other community anchor institutions take into account current bandwidth demands and plan for projected future demand. Infrastructure solutions need to be scalable so that today's solutions are sustainable into the future.[20]

ALA understands the challenges schools and their administrations face in designing a broadband infrastructure that supports the robust use of technology by many students, teachers and librarians, and administrators throughout the typical school day. Scaling to proposed future uses of technology to support student learning outside the school hours and building will require careful planning and allocation of sometimes limited resources. Convening a group of education and technology experts is the correct first step in developing a sustainable and scalable plan to help the Department reach its goal to support meaningful use of technology. ALA supports the recommendation that any goals and metrics developed by the convening be used as a guide by states and districts as they develop local solutions and definitions of meaningful use that will support the unique needs of their communities.

[19] *Public Library Connectivity Study – Findings and Recommendations.* Available at http://www.ala.org/ala/aboutala/offices/oitp/publications/booksstudies/Public_%20Library_Conn.pdf

[20] ALA advocates for a "fiber to the library" solution as a future-proof approach. For more information see: http://www.ala.org/ala/aboutala/offices/oitp/PDFs/fiber%20brief_%20published.pdf.

ALA agrees that "our leadership in the world depends on educating a generation of young people who know how to use technology to learn both formally and informally" and that "technology itself is an important driver of change."[21] Borrowing from the public library perspective, ALA is well aware of the impact the upsurge in technology use has had on communities across the nation as employers, government agencies, and community organizations increasingly put their resources online. Many recently laid off workers who have never had to navigate a website require significant support to apply for unemployment benefits, create email accounts, and apply for new jobs. ALA supports the education community in its effort to prevent such situations in the future. By equipping our students with the skills they need to effectively incorporate technology into their formal and informal education, we are ensuring they will be prepared to meet the challenges yet to come. ALA looks forward to future opportunities to work with the Department as it continues to move the education system toward a more effective model that will meet the needs of today's students and tomorrow's leaders.

5.0 Productivity:

Data is increasingly important as budgets and resources shrink and funding decisions must be well informed. It is likewise increasingly important to make sure that data collection efforts are focused on the areas where the most meaningful information can be collected. As the Department of Education encourages schools and school districts to move toward a system of meaningful use of technology, The American Library Association (ALA) respectfully reminds the Department that many of the most meaningful uses of technology currently occur under the auspices of the school librarian. Additionally, the true measure of the successful integration of technology into education should be based on the outcomes of our students.

Today's school libraries are *learning commons*. They exist not merely as places to obtain materials, but as places to collaborate, create, share, and perform. Library collections commonly include cameras, tripods, headsets, movie editing and digital storytelling software, and microphones. Students use these resources to create tangible products that demonstrate mastery of both the academic subject and technology.

The ReadWriteWeb offers the possibility of dialogue and connection with new audiences not bound by school walls. School librarians provide resources and instruction that prepare students to transform the knowledge they build into sharable products – projects with the potential to contribute to their communities and beyond. Continuing to extend the notion of *collection*, school library websites archive and showcase evidence of student learning by creating informal portfolios of the a school's learning culture.

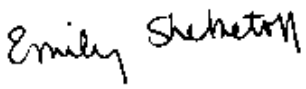
Clearly, the end-product of research today should not always be a research paper. Businesses are likely to be more interested in what their employees can offer to make their companies more viable and more visible to the rest of the world. Just as our politicians and leaders, they are far

[21] National Education Technology Plan (p. 4).

more likely to examine and leverage thoughtfully-created products. Librarians prepare learners to both evaluate media messages, to create new media, and to participate ethically and effectively in a dynamic media-rich world. It is critical, therefore, that students have access to multi-media applications and productivity tools, including social networking websites, collaborative tools and programs, as well as a variety of mobile devices in order to become proficient with the variety of technologies they will be expected to be able to use in future work settings.

Student productivity should be measured in a way that reflects how their performance will be measured and evaluated in the future workplace. The goal of any productivity measurement should be to support learners and provide them authentic feedback that they can use for continual improvement and growth.

Respectfully submitted,



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