



# 2006 Information Literacy Summit

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# American Competitiveness in the Internet Age Report

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## Contents

<b>Introduction</b> .....	<b>1</b>
<b>Executive Summary</b> .....	<b>1</b>
<b>Key points that emerged from the Summit</b> .....	<b>2</b>
<b>Summit Program</b> .....	<b>3</b>
Panel One – The Global Challenge .....	3
Panel Two – The Student and Worker Challenge .....	5
Panel Three - The Public Policy Challenge.....	7
<b>Conclusion</b> .....	<b>9</b>
<b>Appendix A</b> .....	<b>10</b>
21st Century Literacy in Review .....	10
<b>Appendix B</b> .....	<b>12</b>
National ICT Literacy Policy Council.....	12
Purpose: .....	12
Council Membership:.....	12
<b>Appendix C</b> .....	<b>13</b>
Attending Organizations.....	13

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*“Information Literacy is crucial to the competitive advantage of individuals, enterprises (especially small and medium enterprises), regions and nations (and) provides the key to effective access, use and creation of content to support economic development, education, health and human services, and all other aspects of contemporary societies...”*

The Alexandria Proclamation on Information Literacy and Lifelong Learning, 2005

## Introduction

In January 2006, President Bush announced the American Competitive Initiative (ACI) and issued a call for advances in research, science, and technology and for improvements in American education and workforce. To be successful in meeting this challenge, policy-makers, business leaders, and educators must be prepared for the Internet Age. Just as World War II powered America’s technological and economic growth 60 years ago, the technology revolution of today must empower people to make effective use of the information gained because of technology.

As the global economy continues to expand and as other countries become more technologically advanced, the U.S. is increasingly at risk of losing its competitive edge in the world. Information literacy—the abilities to know when information is needed, to be able to identify, access, evaluate and effectively use information for the issue or problem at hand—is a key ingredient for lifelong learning, economic success, and quality of life. In today’s information society, it has become essential to individual success and national competitiveness.

## Executive Summary

On October 16, 2006, an Information Literacy Summit explored the urgent need to address and correct America’s information-literacy deficits. More than a hundred people participated in the Summit, which was sponsored by the National Forum on Information Literacy in partnership with the Committee for Economic Development, the Educational Testing Service, the Institute for a Competitive Workforce (an affiliate of the U.S. Chamber of Commerce), and the National Education Association—at whose headquarters the meeting was held.

The goal of this Summit was three-fold: (1) to raise awareness among policy makers and the media about the importance of an information-literate society in the 21<sup>st</sup> century; (2) to develop a comprehensive strategy to increase the number of highly-skilled information literate people in the United States; and (3) to establish information literacy standards and assessments nationwide. The overarching focus of the Summit was: “How do we adequately prepare students to be lifelong learners with the skills necessary to compete in a rapidly changing world?”

The program, which included three panel discussions, with participants drawn from leadership roles in government, education, and business, began broadly by examining information literacy from an international perspective and then took a closer look at the current status in the United States. These renowned leaders from the different sectors, across the country and beyond, shared their perspectives on what it means to be information literate and why it is important.

## **Key points that emerged from the Summit**

- Information literacy is crucial to the competitive advantage of individuals, enterprises, regions, and nations.
- Literacy (basic through information literacy) is about social change and lifelong learning.
- A team of experts should develop national standards for information literacy.
- Information literacy programs should be developed for K-12, for both students and teachers.
- Academic programs and policies should encourage the development of information literacy skills.
- The business community, which understands the importance of good information management, can be a crucial ally for information literacy.
- The reauthorization of the Elementary and Secondary Education Act offers challenges as well as opportunities for raising awareness of information literacy.

## Summit Program

### Panel One – The Global Challenge

#### Panelists included:



Robert Wedgeworth, President and CEO, ProLiteracy Worldwide



Andrea Taylor, Director, U.S. Community Affairs, Microsoft Corporation



Abdelaziz Abid, Senior Programme Specialist, Communications and Information Sector, UNESCO



Patricia Breivik, Vice President, Nehemiah Communications, Moderator

The panelists addressed information literacy as a global concern, invaluable to both individuals and nations. They noted that the concept of “literacy” incorporates social change as well as lifelong learning and that information literacy is crucial to both developing nations and developed nations. Robert Wedgeworth described the breadth of the term “literacy”: “At one end of the spectrum, you have people who are at the very basic levels of literacy or even illiterate. At the other end of the spectrum, you have computational, linguistics, scientific, technical and information literacy; in the middle you have things like media literacy and graphic literacy. Almost any country in the world will have people who are at various points on that spectrum...”

Wedgeworth pointed out that information literacy is much more than access to technology or a set of abilities and skills. It is “an accurate predictor of the quality of life an individual will have.” He noted a “clear correlation between levels of literacy and what a child will be able to do when grown up, what an adult will be able to do in terms of ability to support a family, participate in community affairs, and do simple things that everyone should be expected to do as an adult.”

Following Wedgeworth, Andrea Taylor advocated for lifelong learning because “adults live longer, work longer, and learn longer,” which creates a need for “a broader, deeper, and more sustainable way of distributing information.” The interconnected and integrated aspects of information literacy in our global society were articulated by Abdelaziz Abid, who made these points:

*Information literacy extends beyond technologies and encompasses critical thinking and interpretive skills across professional boundaries. . . . Information literacy is really about empowering people—empowering individuals, nations and communities. My second comment is that information literacy is a crosscutting function between education, research and business. Therefore, information literacy should be part of any e-policy, e-science, e-business, e-health effort because of its centrality. And my last issue is that information literacy is crucial to the competitive advantage of individuals, enterprises, regions and nations.*

The panelists specified settings where skills in finding and using information are invaluable, such as the healthcare industry and business. In the past, geographical features such as mountains, rivers, and seas made access to information difficult or impossible. In the 21<sup>st</sup> century, however, technologies can bring information to the most remote corners of the world.

## Panel Two – The Student and Worker Challenge

### Panelists included:



Jan Magill, Director, Workforce and Education Programs Institute for a Competitive Workforce, an affiliate of the U.S. Chamber of Commerce



Lorie Roth, Assistant Vice Chancellor for Academic Programs, California State University System



Margaret Honey, Vice President, Education Development Center, and Consultant to the Partnership for 21<sup>st</sup> Century Skills

Patricia Breivik, Moderator

This panel focused on the information needs of the American workforce and the ability of schools and colleges to meet those needs. The panelists proposed a number of changes that could bridge the gap between business, which acts quickly, and schools, which make changes more slowly. They called for national information literacy standards in K-16; alignment of school-based standards with the skills needed in the workplace; partnerships between business and K-12; and increasing teachers' awareness of information literacy and their ability to teach it.

According to Jan Magill, equipping people with the skills and abilities needed in a changing work environment “is critical to our over 3,000 state and local Chambers of Commerce, over 800 associations, and thousands of businesses who are our members globally.” She addressed the major changes in the American workforce: declining global competitiveness, an aging population, and an increasing immigrant work group, many of whom have not accessed K-16 education. Magill also referred to the 1991 SCANS report that identified the skills needed across all jobs: finding, gathering, organizing, synthesizing, and reorganizing information. Yet neither the business nor the education sector has moved rapidly to address these skills. Summing up her assessment of workplace/school connections, Magill described the Chamber of Commerce’s efforts to create a work readiness credential. It was developed to help evaluate entry-level workers’ ability to think critically and to use information effectively in decision-making. Currently in the pilot stage, this credentialing project is a tool that both business and K-16 can use in making sure that students achieve work readiness skills.

Lorie Roth discussed university-business collaborations in California State University System. In a recent university initiative, Chancellor Charles Reed asked experts from important California industries to define the skills college graduates need; the industry experts unanimously identified general education skills like critical thinking, analytical reasoning, and information literacy—and the importance of these workforce skills have been communicated to the 23 CSU campuses. Because these skills are critical, the CSU along with other universities and ETS, has developed the ICT Literacy Assessment, an online, scenario-based test of students' abilities to find, evaluate, and use information appropriately. Roth noted, however, that in the 21<sup>st</sup> century university faculty can no longer “cover the material” because there is too much material to cover, and professors must therefore revamp their pedagogies. Because of the information explosion, professors and students will have to constantly learn new information and find new information.

Addressing the K-12 perspective, Margaret Honey pointed out that No Child Left Behind (NCLB) legislation dramatically expanded the federal role in education and schools. The upcoming reauthorization of the Elementary and Secondary Education Act could provide an opportunity to tackle issues discussed in this Summit. While noting the significance of this opportunity to change education policy, she cautioned that the challenge is “to bring people from all sorts of different viewpoints and different vantage points together to come up with an agenda that is fundamentally going to help the competitiveness of the country and our most underserved students as well.” She highlighted the incongruities: Roughly \$30 billion has been spent to build out the K-12 telecommunications infrastructure, but much of it is used rarely or not at all. In addition, with mathematics and basic literacy as top priorities, other critical skills, such as information literacy, are being shortchanged.

## Panel Three - The Public Policy Challenge

### Panelists Included:



Patrick M. Callan, President, The National Center for Public Policy and Higher Education



Ralph Wolff, Executive Director, Western Accrediting Commission for Senior Colleges and Universities



Les Francis, Executive Vice President, Goddard/Claussen Strategic Advocacy

Patricia Breivik, Moderator

This panel focused on efforts to promote awareness of information literacy as a strategic U.S. tool in today's global economy and to promote the inclusion of information literacy in public policy. Because information literacy is such a complex concept, marketing it is difficult. Just how this marketing can best be accomplished was the question before the panel.

Patrick M. Callan suggested that perhaps information literacy does not have a high profile because nobody is against it; it is, in fact, rather universally approved. However, its general acceptance means that there is no debate, no discussion, no conversation about information literacy—as there is with other more controversial curriculum issues. Callan remarked, “Information literacy isn’t sexy; it’s just essential.” One way of raising awareness is working to make sure that information literacy is addressed in the student learning outcomes required by regional and professional accreditors.

Ralph Wolff, the director of one of those accrediting agencies, stated that business leaders, governors, legislators and congress people do not yet understand the connection between information literacy and economic viability. He believes that “the problem with this issue is not opposition. The problem is to try and persuade, to try and create a sense, that this is a core element of the educational strategy for dealing with the issues that are going to make the country successful educationally and economically.”

Panelists were in general agreement that the NCLB Reauthorization provides a good opportunity to make the case for information literacy nationally. In order to capitalize on this opportunity, Les Francis stressed the need to make the rounds of legislators and other public policy makers at the state and federal level; and one by one, or in small groups, make the case—introducing the subject of information literacy and what the public policy ramifications are or should be.

Panelists suggested drawing on existing public support around information literacy the awareness of its connection to competitiveness. In higher education, a great deal of conversation centers on critical thinking and lifelong. Information literacy needs to be linked to these conversations, so that information literacy is seen to be an integral part of the major issues rather than a separate area of concern. These conversations need to be joined—not only with governmental policy makers but also with leaders in education, especially higher education.

The panel discussed the possibilities of a national information literacy policy. Some countries among the European democracies already have or are considering such policies. Given the importance of an information-literate workforce to American competitiveness, a U.S. policy might be desirable, but it would be difficult to effect. The difficulties include the complexity and variety of American education and lack of a coordinated strategy.

With no overarching federal policy, national and regional accreditors serve as guarantors of quality, and all regional accrediting agencies address the quality of libraries and library services. However, tabulating the numbers of books is not the same as ensuring that students have information literacy skills. The key is to have information literacy embedded within the evaluation of student learning outcomes.

Without a federal or an accreditation mandate, information literacy issues are addressed within universities and schools. It requires institutional support to make sure that faculty members become information-literate and that they in turn serve as models and mentors to their students. Institutions that train doctoral students or prepare teachers should ensure that information literacy is in their curricula.

The panelists pointed out that the highly influential 1983 report called *Nation at Risk* showed that educational deficits were a national problem not a local one, and the same can be true for information literacy. Developing a national strategy around information literacy is a necessity. They noted that “these issues are national issues and the future of the country depends to a large degree on our success in addressing them. And so the sense of urgency often comes from something being defined as a national problem, even if the states, again, are where most of the solution has to occur.”

## Conclusion

Technology skills are simply not enough. In order for America to advance and sustain its global competitiveness, students and workers must be information literate, i.e., they must be able to discern information needs and locate, evaluate, and effectively use that information in the workplace, in their communities and in their personal lives.

Addressing the issue of information literacy within the context of 21<sup>st</sup> century literacies (see Attachment A for a list of literacies) and what it means for global competitiveness and national standing for the United States requires coordinated leadership and strategic planning. The urgency of addressing this question and associated policy issues requires a proactive, coordinated response.

To facilitate such efforts, the summit concluded with the announcement of the National ICT Literacy Policy Council, which is charged to establish national standards for information literacy. (See Attachment B for the Council charge and membership.)

## Appendix A

### 21st Century Literacy in Review

*“The new literacies of the Internet and other ICTs include the skills, strategies, and dispositions necessary to successfully use and adapt to the rapidly changing information and communication technologies and contexts that continuously emerge in our world and influence all areas of our personal and professional lives. These new literacies allow us to use the Internet and other ICTs to identify important questions, locate information, critically evaluate the usefulness of that information, synthesize information to answer those questions, and then communicate the answers to others.”*

Ruddell, R. & Unrau, N. (Eds). 2004. Theoretical Models and Processes of Reading. Leu, D. et al. Toward a Theory of New Literacies Emerging From the Internet and Other Information and Communication Technologies.

From a conceptual perspective, literacy provides individuals with the options and opportunities to develop the habits of mind and requisite skills to prepare them in becoming engaged lifelong learners and participants in the economic, social, political, and intellectual development of society. In the early 1900s, a person who could read, write, and perform simple mathematical calculations was considered literate. Today, in the 21<sup>st</sup> century, literacy expectations are much more complex than at any other time in our history. The literacy definition list below reflects the skills needed to actively and effectively participate in our dynamic, multifaceted global information society:

- **Basic Literacy:** the ability to use language—to read, write, listen, and speak at levels necessary to function on the job and in society, to achieve one's goals and to develop one's knowledge and potential in this Digital Age.
- **Information Literacy:** The ability to evaluate information across a range of media; recognize when information is needed and have the ability to locate, synthesize, and use information effectively, with print and electronic media. “Ultimately, information literate people are those who have learned how to learn.”
- **Information and Communication Technology (ICT) Literacy:** The ability to use digital technology, communication tools and networks appropriately to solve information problems in order to function in an information society.
- **Economic and Financial Literacy:** The ability to identify economic problems, alternatives, costs, and benefits; analyze the incentives at work in economic situations; examine the consequences of changes in economic conditions and public policies; collect and organize economic evidence; and weigh costs against benefits; make informed judgments and decisions regarding the use and management of money.
- **Health Literacy:** The ability to read, understand, assess, and act on health information.
- **Media Literacy:** The ability to interpret, use, appreciate, and create images and video using both conventional and 21st century media in ways that advance critical thinking, informed decision making, communication, and learning.

- **Multicultural Literacy:** The ability to understand and appreciate the similarities and differences in the customs, values, and beliefs of one's own culture and the cultures of others around the world.
- **Scientific Literacy:** The ability to understand that science and technology are human enterprises with strengths and limitations, recognizes key concepts and principles of science, familiar with the natural world, both its diversity and unity, and applies scientific knowledge and skills for individual and social purposes.

## Appendix B

### National ICT Literacy Policy Council

#### **Purpose:**

The National ICT Literacy Policy Council will provide leadership in creating national standards for ICT Literacy. It will review assessments and current standards documents, decide on the number of assessment levels desirable and provide descriptions of each, i.e., the Council will determine what should students know and be able to do at each level. It will then charge two “Cut Score” panels to review the core and advanced ICT tests and related data and recommend cut points (where to draw the line) between each of the performance levels. When this work is done, the Council will be convened for the second time to receive the recommendations and modify and/or accept them as appropriate national ICT standards.

#### **Council Membership:**

Dr. Camilla Benbow, Dean, Vanderbilt University College of Education and Behavioral Sciences;  
member of the National Science Board

Dr. Daniel J. Callison, Director of Library Media Education, Indiana University; representing  
American Association of School Librarians

Dr. Leonard de la Garza, Chancellor, Tarrant County College

Donna Desrochers, Vice President and Director of Education for the Committee for Economic  
Development

Dr. Charles D. Dziuban, Director, Research Initiative for Teaching Effectiveness, University of  
Central Florida; representing EDUCAUSE

Karen Elzey, Senior Director, Institute for a Competitive Workforce, an affiliate of the U.S.  
Chamber of Commerce

Dr. Margaret Honey, Vice President, Education Development Center

Dr. Lana Jackman, President, Melange Information Services, Inc.; representing the National Forum  
on Information Literacy and Policy Council Chair

Dr. Donald Knezek, CEO, The International Society for Technology in Education

Dr. Tomas D. Morales, Provost, California State Polytechnic University, Pomona

Dr. Barbara O'Connor, Director of the Institute for the Study of Politics and Media and Chair of  
the ETS ICT Literacy International Panel

Loretta L. Parham, CEO and Library Director, Robert W. Woodruff Library, Atlanta Center; Chair  
of the HBCU Library Alliance Board of Directors

Dr. Terrel L. Rhodes, Vice President for Quality, Curriculum and Assessment, Association of  
American Colleges & Universities

Dr. Sharon Robinson, Executive Director, American Association of Colleges for Teacher Education

Dr. Howard L. Simmons, Director, Division of Educational Leadership & Policy Studies, Morgan  
State University; former Executive Director of Middle States Commission on Higher  
Education

Dr. Gordon L. Smith, Director, Systemwide Library Initiatives, California State University; Chair,  
National Advisory Committee, ICT Literacy Assessment—Higher Education

Barbara Stein, Manager, External Partnerships and Advocacy, National Education Association

Robert Wedgeworth, President, ProLiteracy Worldwide

Betsy Wilson, Dean of University Libraries, University of Washington; representing Association of  
College & Research Libraries

## Appendix C

### Attending Organizations

AACTE  
Educational Testing Service  
ETS  
National Education Association  
University of Central Florida  
Committee for Economic Development  
Fairfax County Public Schools  
George Mason University  
Thornburg Center for Professional Development  
Washington Partners, LLC  
AACTE  
AASL  
Alliance for a Media Literate America  
American Association of School Librarians  
american educational research association  
American Library Association  
Americans for UNESCO  
Asiad & Associates  
Assoc of College & Research Libraries  
Association of American Colelges and Universities  
Association of Research Librariess  
Cable in the Classroom  
California State University System Office  
Chronicle of Higher Education  
CoSN  
Council of Independent Colleges  
Dept. of Ed. - NCES  
Education Daily  
Education Development Center/Center for Children and Technology  
Education Legislative Services  
Educational Testing Serci  
Goddard Claussen  
IFLA Observer  
int'l soc for tech in ed  
ISTE  
KIP Group  
Lapidus Associates  
Legislative Strategies, Inc.  
Melange Information Services, Inc.  
Minustah  
NAFSA: Association of International Educators  
National Center for Family Literacy  
National Center for Public Policy and Higher Education

National Council for the Social Studies  
National Council of Teachers of English  
National Education Association  
National Education Knowledge Industry Association  
National School Boards Association  
Nehemiah Communications, Inc.  
NSF/Stamford, CT Public Schools  
Office of UNESCO Affairs, U.S. State Dept.  
Prince George's Community College  
ProLiteracy WorldWide  
Purdue University Libraries  
Research Triangle International  
Rosenfeld Library, UCLA Anderson School  
RTI International - Int'l Development Group  
Software & Information Industry Association (SIIA)  
Tarrant County College  
The Aspen Institute Communications and Society Program  
The International Society for Technology in Education  
The Kids, Inc.  
The NEA Foundation  
TIME  
U. S. Chamber of Commerce  
UCLA - College Library  
UNESCO  
University of South Carolina  
US Committee for Refugees and Immigrants  
US Department of Education  
Van Scoyoc Associates  
Vanderbilt University  
Verizon Foundation  
Vollmer Public Relations  
Western Accrediting Commission for Senior Colleges & Universities  
Woodruff Library of the Atlanta University Center  
Young Chais Consulting