

The National Center for Learning Science and Technology

H. R. 3631 BILL SUMMARY

Purpose: The National Center for Learning Science and Technology Trust will be a Fund essential to American education, competitiveness and security in the 21st Century.

The Trust will:

- Provide financing for research, development, and demonstration of advanced information technologies that can transform education, training, and lifelong learning just as the National Science Foundation and the National Institutes of Health do in their fields.
- Build multi-disciplinary teams that combine the skills in America's colleges, universities, museums, libraries, public broadcasting entities and other similar organizations as well as the corporate sector to achieve these goals.
- Support the testing and evaluation of these systems; and encourage the widespread adoption and use of effective approaches to learning.

Funding & Structure: The National Center for Learning Science and Technology will be structured as a Congressionally originated 501(c)(3) nonprofit corporation with a nine-member Board of Directors, appointed by the Secretary of Education. Grants and contracts will be awarded on merit. The Board and Director of the Trust will develop policies that follow the tested procedures of NSF and NIH. Congress will review the Trust's budget and financial performance annually. The Trust will be financed through appropriations from Congress, as well as through donations, contracts, grants, and other private and public sources of funds.

Rationale: Any successful strategy for American competitiveness and innovation in the 21st Century must address essential R&D for education and training. The nation's education and training institutions are not making the most effective use of advanced information technology that has transformed almost every other sector of society. Technologies using state-of-the-art simulation, visualization, and other tools have been used to accelerate mastery of complex expertise in a variety of subject areas making it affordable to implement approaches to teaching and learning long recommended by experts in pedagogy and learning. The technologies are particularly effective in building critical "21st century skills" needed for Americans to compete in a fast changing global economy. These skills include critical thinking, interpretative analysis, problem solving, plan formulation and execution, efficient data assembly and learning. Our competitors in the international marketplace, including China, Japan, Ireland, and India, are already responding to those needs by investing heavily in upgrading their education and training systems with R&D in learning technologies. At present, no federal agency has a comprehensive and coherent program to undertake the complex and difficult research needed to develop and test innovative learning strategies using new technology. Nor is there any initiative to ensure that the research will be made available for immediate and widespread use on a national level.

Historical Findings:

Former Federal Reserve Board Chair Alan Greenspan: “Workers must be equipped not simply with technical know-how but also with the ability to create, analyze, and transform information and to interact effectively with others. Moreover, that learning will increasingly be a lifelong activity.”ⁱ

Former Secretary of Education Rod Paige: “Education is the only business still debating the usefulness of technology... We still educate our students based on an agricultural timetable, in an industrial setting, yet tell students they live in a digital age.”ⁱⁱ

Former Undersecretary of Commerce Phillip J. Bond: “We need to... create a new ‘knowledge utility’ for all, which integrates learning into all aspects of our work and our lives, making learning opportunities as ubiquitous as electricity for everybody.”ⁱⁱⁱ

The Congressionally appointed, bipartisan Web-based Education Commission: “Develop high quality online educational content that meets the highest standards of educational excellence... embrace an ‘e-learning’ agenda as a centerpiece of our nation’s federal education policy... [We urge] the federal government to create a comprehensive research, development, and innovation framework for learning technology... as a central goal of telecommunications policy.”^{iv}

President George W. Bush’s Information Technology Advisory Committee: “Our overarching recommendation is to make the effective integration of information technology with education and training a national priority.”^v

Former House Commerce Committee Chairman Thomas Bliley (R-VA), in an op ed published in *The Hill*, urged his former colleagues in Congress and the White House to achieve the goals of the Telecommunications Reform Act of 1996, which he sponsored: “Soon, I predicted, ‘every inner-city school will have... the resources of our greatest universities and every rural clinic will be able to draw on the latest discoveries at the Mayo Clinic and Sloan Kettering...’ Imagine using the Internet to teach first responders – police, fire and emergency medical technicians – how better to respond to emergencies... That same technology could teach unemployed workers new job skills – on their own time, at their own pace and in their own homes.... Congress and the White House must act, and soon. Happily, there’s a solution on the horizon...”^{vi}

ⁱ *The Evolving Demand for Skills*, Remarks by Chairman Alan Greenspan given at the U.S. Department of Labor National Skills Summit, Washington, D.C. April 11, 2000.

ⁱⁱ *2020 Visions, Transforming Education and Training Through Advanced Technologies*: U. S. Department of Commerce: introductory letter dated September 9, 2002.

ⁱⁱⁱ *Technology Administration Education and Training in the 21st Century: Creating the Knowledge Utility* Remarks By Phillip J. Bond, Under Secretary of Commerce for Technology U. S. Department of Commerce, Delivered Before A National Summit on Education Technology at the U.S. Chamber of Commerce, Washington, D.C. January 25, 2002. (http://www.technology.gov/speeches/p_PJB_020125_Education.htm).

^{iv} *The Power of the Internet for Learning: Moving from Promise to Practice*, The Web-Based Education Commission, December, 2000, page iv.

^v *Using Information Technology to Transform the Way We Learn*, PITAC Panel on Transforming Learning, Report to President George W. Bush, February 2001.

^{vi} Thomas J. Bliley, ‘Seeking to fulfill the promise of telecommunications,’ *The Hill*, July 19, 2003, page 16.