Harnessing “openness” to improve higher education

Committee for Economic Development Releases Report on Improving Research, Teaching, and Learning in the Digital Age

Washington, D.C. November 6, 2009 – Colleges and universities should embrace the concept of increased openness in the use and sharing of information to improve higher education. That is the core recommendation of Harnessing Openness to Improve Research, Teaching and Learning in Higher Education, a new report from the Committee for Economic Development (CED). The report was produced by CED’s Digital Connections Council (DCC), a group of information technology experts that advises CED’s business leaders on cutting-edge technologies.

“While other industries, such as finance and entertainment, have used openness to improve their business model, higher education has been slow to adapt to the digital information age. Creating, analyzing, and transmitting information is vital to teaching and learning, so it is a matter of concern that colleges and universities are lagging in utilizing technology to achieve greater openness to their core missions of teaching, learning and research,” said Digital Connections Council Chair Paul Horn, Senior Vice President, Research (retired), IBM Corporation.

Harnessing Openness to Improve Research, Teaching and Learning in Higher Education examines the impact of openness on colleges and universities. The report identifies some of the potential gains from making higher education more open and recommends actions that policy makers and institutions of higher education can take to harness its benefits.

The development and use of digital materials including “open educational resources” (OER) suggest the possibility of future gains in the efficiency of teaching and learning, and the attainment of better student outcomes. Unlike traditional printed educational materials, digital educational materials have the valuable characteristics of allowing teachers and students to know what parts of the materials have been reviewed and providing immediate feedback on what the learner has done with the material. One can more easily determine how successful the student has been in achieving the learning outcomes that the materials are designed to produce, and further work can be tailored accordingly. OER provides even greater potential to customize these materials even for an individual student.

The report also examines how increased openness will improve other key functions of colleges and universities, particularly research, by encouraging collaboration and information sharing to speed innovation. Greater openness can also improve relations with various stakeholder communities and strengthen university administration. Greater openness can be particularly helpful for community colleges which have fewer resources and ever greater needs to serve many different types of students.

“The Internet has expanded the ability of colleges and universities to become more open and, in the process, more productive and socially valuable. Many institutions of higher education—
both non-profit and for-profit—are experimenting with new technologies. We need to encourage such experimentation and closely evaluate how these trials are working to expand access to higher education and improve educational outcomes,” said CED Trustee Patrick Gross, Chairman, The Lovell Group.

Recommendations

The following are among the key recommendations of Harnessing Openness to Improve Research, Teaching and Learning in Higher Education:

Governments should:

- Fund research on the comparative effectiveness of digital educational materials, including OER, and conventional materials as well as on best practices for online and blended on-line and face-to-face education. Additional research aimed at assessing the accomplishment of learning outcomes would help support improved teaching and learning.

- Remove obstacles to federal involvement in efforts with states, colleges and universities, and accrediting bodies to establish minimum quality standards for, and foster self improvement by, institutions of higher education. Support efforts to establish clearer learning outcomes at the program and departmental level at institutions of higher education.

- Establish standards for the nationwide collection and reporting of data tracking student progress from high school to post-secondary institutions and then on to the workplace, focusing on educational outcomes and factors that favor or impede student success. Such data should be broadly accessible and useable and subject to rules to protect privacy and security.

- Maintain and extend policies increasing access to government funded research and facilitating the non-commercial use of materials for educational purposes.

Colleges and universities should:

- Reexamine and readjust technology transfer policies and programs, particularly exclusive licensing arrangements, in light of the research mission to create and disseminate new knowledge, while recognizing the need to generate revenues to support the institution.

- Establish open-source digital repositories and require faculty to provide the institution with a non-exclusive license to the products of their research. Deposit electronic copies of the research into the repository and identify them using standardized metadata to facilitate search and use. Ensure faculty the right to withhold research from general availability while providing metadata to disclose the existence of the research and contact information.

Harnessing Openness to Improve Research, Teaching and Learning in Higher Education and more information about CED’s work on digital economy issues are available at www.ced.org.

CED is a non-profit, non-partisan organization of more than 200 business leaders and university presidents. Since 1942, its research and policy programs have addressed many of the nation’s most pressing economic and social issues, including education reform, workforce competitiveness, campaign finance, health care, and global trade and finance. CED promotes policies to produce increased productivity and living standards, greater and more equal opportunity for every citizen, and an improved quality of life for all.