Faced with unprecedented challenges, what can our community do to shape a better future? One answer appears to involve the more effective use of data.

In their article “Penetrating the Fog: Analytics in Learning and Education,” Phil Long and George Siemens state: “The most dramatic factor shaping the future of higher education is something that we can’t actually touch or see: big data and analytics.” Correspondingly, Hrabowski, Jack Suess, and John Fritz argue that we should approach institutional transformation with the same scholarly rigor we expect of researchers: by collecting data, using modeling and statistical analysis, and assessing results. Information technology can help change institutional culture and achieve campus priorities by supporting evidence-based decision-making and management.

Unfortunately, our culture of evidence may not be as strong as one might assume. In “Seeking Evidence of Impact,” Malcolm B. Brown and Veronica Diaz explore the EDUCAUSE Learning Initiative (ELI) community’s understanding of “evidence and “impact.” Evidence of impact, such as evidence that information technology has a positive impact on student learning, is desirable. In a recent ELI survey, 71 percent of respondents agreed that their campus is receptive to reports of evaluation projects. However, only 15 percent gather evidence systematically, and only 9 percent do so at an institutional level. As Charles Dziuban observes: “In the absence of data, anecdote can become the primary basis for decision-making. Rarely does that work out very well…. Uncollected data cannot be analyzed.”

Long and Siemens note: “The move toward using data and evidence to make decisions is transforming other fields.” Even though higher education “gathers an astonishing array of data about its ‘customers,’” we haven’t focused sufficiently on using these learner-produced data trails to improve learning. They advocate for analytics as “a new model for college and university leaders to improve teaching, learning, organizational efficiency, and decision-making and, as a consequence, serve as a foundation for systemic change.” Analytics can have value in higher education across administration, research, teaching and learning, and support services. Long and Siemens cite multiple examples:

- Improve administrative decision-making and organizational resource allocation
- Increase organizational productivity and effectiveness by providing up-to-date information and allowing rapid response to challenges

Something has to change. How do we do better with less? In this issue of EDUCAUSE Review, University of Maryland, Baltimore County (UMBC) President Freeman Hrabowski III contends that higher education “must begin by transforming its own culture, which is reflected in the questions we ask (and those we don’t), the achievements we measure and highlight (and those we ignore), and the initiatives we support (or don’t support).” Faced with unprecedented challenges, what can our community do to shape a better future? One answer appears to involve the more effective use of data.

In their article “Penetrating the Fog: Analytics in Learning and Education,” Phil Long and George Siemens state: “The most dramatic factor shaping the future of higher education is something that we can’t actually touch or see: big data and analytics.” Correspondingly, Hrabowski, Jack Suess, and John Fritz argue that we should approach institutional transformation with the same scholarly rigor we expect of researchers: by collecting data, using modeling and statistical analysis, and assessing results. Information technology can help change institutional culture and achieve campus priorities by supporting evidence-based decision-making and management.

Unfortunately, our culture of evidence may not be as strong as one might assume. In “Seeking Evidence of Impact,” Malcolm B. Brown and Veronica Diaz explore the EDUCAUSE Learning Initiative (ELI) community’s understanding of “evidence and “impact.” Evidence of impact, such as evidence that information technology has a positive impact on student learning, is desirable. In a recent ELI survey, 71 percent of respondents agreed that their campus is receptive to reports of evaluation projects. However, only 15 percent gather evidence systematically, and only 9 percent do so at an institutional level. As Charles Dziuban observes: “In the absence of data, anecdote can become the primary basis for decision-making. Rarely does that work out very well…. Uncollected data cannot be analyzed.”

Long and Siemens note: “The move toward using data and evidence to make decisions is transforming other fields.” Even though higher education “gathers an astonishing array of data about its ‘customers,’” we haven’t focused sufficiently on using these learner-produced data trails to improve learning. They advocate for analytics as “a new model for college and university leaders to improve teaching, learning, organizational efficiency, and decision-making and, as a consequence, serve as a foundation for systemic change.” Analytics can have value in higher education across administration, research, teaching and learning, and support services. Long and Siemens cite multiple examples:

- Improve administrative decision-making and organizational resource allocation
- Increase organizational productivity and effectiveness by providing up-to-date information and allowing rapid response to challenges

(continued on page 6)
(continued from page 4)

- Identify at-risk learners and provide intervention to assist learners
- Provide learners with insight into their own learning habits and give recommendations for improvement
- Create, through transparent data and analysis, a shared understanding of the institution’s successes and challenges
- Help leaders transition to holistic decision-making through analyses of what-if scenarios and experimentation

With the increasing pressures for accountability, efficiency, and continuous improvement in higher education, our need for data and analytics—and evidence of impact—will continue to grow. We need a better understanding of the applications, tools, and skills required. Long and Siemens emphasize: “Analytic in education must be transformative, altering existing teaching, learning, and assessment processes, academic work, and administration.” As J. D. Walker observes: “Good research costs money, and budgets are tight.” But these costs are miniscule compared with the costs of making unwise investments, failing to help students succeed, and missing opportunities for innovation and economic growth.

IT units have a growing imperative to advance institutional data, analytics, and decision-making. To do better with less, we should heed Hrabowski’s advice. We must begin by transforming our own culture.

Diana G. Oblinger (doblinger@educause.edu) is President and CEO of EDUCAUSE.

© 2011 Diana G. Oblinger. The text of this article is licensed under the Creative Commons Attribution-NonCommercial-NoDerivs 3.0 License (http://creativecommons.org/licenses/by-nc-nd/3.0/).