The 2014 top-ten strategic technologies were selected from the analysis of a vetted set of 78 technologies presented to EDUCAUSE members in a survey in fall 2013. The items below have been selected to provide further information or highlight examples of the top-ten strategic technologies.

1. Business Intelligence Reporting Dashboards
   Reimagining Learning Tools for Qualitative Research, EDUCAUSE Review Online, June 2013. The QualQuery tool, which uses a dashboard and checklists, was used to support undergraduate research in a course.
   Enabling the Data-Driven University, EDUCAUSE Review Online, August 2012. The business intelligence team at Arizona State University created a dashboard to track usage of the various existing dashboards and tools.
   Big Data for Education: Data Mining, Data Analytics, and Web Dashboards, The Brookings Institution, September 2012. In this Brookings Institution report, author Darrell West, examines the potential for improved research, evaluation, and accountability through data mining, data analytics, and web dashboards.

2. Mobile Apps for Enterprise Applications
   How Emory-Riddle Successfully, Affordably, and Painlessy Launched Its Mobile App with ERP and LMS Integration. This presentation from the 2012 EDUCAUSE Annual Conference discussed Emory-Riddle University’s use of DUBLabs for their institution’s mobile app.
   uOttawa’s mobile web application.
   Adventures in Mobility, EDUCAUSE Review Online, July 2012. This article details the University of Mississippi’s use of the SAP mobile platform.

3. Mobile App Development
   Developing a Campus Mobile Strategy: Guidelines, Tools, and Best Practices, January 2013. ECAR Mobile Strategy and Application Development WG.
   7 Things You Should Know About Application Development Tools, ELI, September 2012.
   The Best Tools for Mobile App Development, Creative Bloq.

4. Enterprise Identity and Access Management Solutions
   InCommon, Operated by Internet2. InCommon provides a secure and privacy-preserving trust fabric for research and higher education, and their partners, in the United States. InCommon operates an identity management federation, a related assurance management program, and offers certificate and multifactor authentication services.
   IAM Tools & Effective Practices Wiki: This wiki provides a set of resources for IAM Architects to use in implementing a cohesive program on their respective campuses.
   CommIT, Common Identity and Trust Collaborative. CommIT intends to, Ease the process for high school students preparing their college applications, Assist higher education IT departments, Admissions Officers, and Registrars in accepting applications from and provisioning resources to prospects, Improve the offerings of the participating vendors, and improve the quality of prospect credentials.
   Identity Ecosystem Steering Group. The Identity Ecosystem envisioned in the NSTIC is an online environment that will enable people to validate their identities securely, but with minimized disclosure of personal information when they are conducting transactions.

5. Learning Analytics: Course Level
   Building Blocks for College Completion: Learning Analytics, September 19, 2013. Based on the experiences of the six NGLC grant recipients, this report discusses the development of specific tools for learning analytics and the possibility of scaling them among other institutions.
   Blackboard Analytics and Starfish Retention Solutions are both highlighted in this EDUCAUSE Review Online article, Two Case Studies of Learner Analytics in the University System of Maryland.
   Course Signals, developed by Purdue University, is described in this EDUCAUSE Review Online article, Signals: Using Academic Analytics to Promote Student Success.

6. Administrative or Business Performance Analytics
   Building Organizational Capacity for Analytics. This 2013 EDUCAUSE report provides information about how leading institutions in higher education and vendors are building capacity in analytics to improve student success.
   Analytics for Enterprise Efficiency and Effectiveness. This 2012 Sprint webinar Arizona State University highlights how is analytics used in the institutions enterprise area. For more information on how ASU uses their BI dashboard, see Enabling the Data-Driven University, EDUCAUSE Review Online, August 2012.
   Miami University’s Institutional Analytics Program.

7. Unified Communications and Collaboration
   Unified Communications: How We Got There and Saved Money Doing It. In this EDUCAUSE podcast, along with session slides, Minot State University shares its experience, from start to finish, of designing, testing, and implementing a pure unified communications environment.
   Integrated Communications Technology Survey. This survey was conducted in late 2011 by the ECAR-CIA (Communications Infrastructure and Applications) Working Group, and initial results were shared with ACTI members during the January 2012 ACTI Member Meeting.
8. **802.11ac wireless networking standard**

Distributed Antenna Systems: ACTI Briefing Note, ECAR, 2012. This briefing note from the ACTI Communication, Collaboration, and Mobility Working Group provides an overview of a distributed antenna system (DAS) solutions for in-building wireless coverage for cellular voice services on higher education campuses.

Five Reasons Why Colleges are Taking the 802.11ac Plunge, Aruba Networks blog, August 2013.

802.11ac: The New Standard for Very High Throughput, Meru Networks. This site includes a white paper and a tech brief on the new IEEE standard.

9. **Virtual Desktops or Virtual PC Applications**

Mobile Workspace for Anytime, Anywhere Student Access to Coursework, EDUCAUSE Review Online, November 2013. To meet the high expectations of its engineering students, Florida Atlantic University's College of Engineering and Computer Sciences launched a desktop virtualization project to give students access to personalized data and coursework on any device at any time or place.

Achieving Virtualization: The Holy Grail of IT, EDUCAUSE Annual Conference, 2012. This session details the successful virtual desktop deployment at CU-Boulder's Housing & Dining department with dozens of critical business database systems across 500 staff workstations.

The UConn vPC: A Collaborative Story about Desktop Virtualization, EDUCAUSE Annual Conference, 2012. The UConn vPC is a collaborative IT project that delivers virtual desktops to UConn students that allows them to access UConn-licensed applications from their PCs, Macs, and mobile devices from anywhere in the world. An overview of the service can be found at http://vpc.uconn.edu

10. **Learning Analytics: Degree Advising**

Arizona State University – eAdvisor, Online advising and personalized student support is described in this article, Enabling the Data-Driven University, EDUCAUSE Review Online, August 13, 2012

Degree Compass: A Course Recommendation System, EDUCAUSE Review Online, September 4, 2013. Degree Compass at Austin Peay State University, provides a variety of reports that help the institution optimize course schedules and offer targeted support to at-risk students.

South Orange Community College District presented Sherpa at the 2012 EDUCAUSE Annual Conference, Sherpa: Increasing Student Success with a Recommendation Engine.