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# ASSESSMENT RESOURCES ON THE WEB

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## Purpose and Preview

The role of assessment in education cannot be overstated. As demonstrated by previous chapters of this book, assessment is central to successful teaching and learning practices at all levels— from individual classrooms to programs to departments to institutions. Locating information on communication assessment within the vast universe of institutional Websites, digital libraries, portals, intranets, electronic databases, blogs, and podcasts can be a daunting task.

The purpose of this chapter is twofold: (a) to help those looking for assessment-related materials on the Web and (b) to give an overview of what is available.<sup>1</sup> We first outline several successful strategies for locating online resources on communication assessment; then review the state of assessment information along four broad categories that include Websites developed by educational institutions, government, commercial services, and nonprofit organizations.

## Basic Search Strategies

With the ability of major search engines to index billions of pages, it is not surprising that a single-term search can identify several million Websites. A Google query for “assessment” returned 161,000,000 results (Google Search Engine, 2009); Yahoo! reported 584,000,000 sites (Yahoo! Search Engine, 2009), while MSN search yielded 79,100,000 pages (MSN Search Engine, 2009) (see example below for Google-specific search tips).

Several approaches can make online searching more “to the point.” First, it is critical from the very beginning to determine the overall goal and choose the proper strategy accordingly. If the purpose is to obtain general information on assessment, then start with a *directory* search using Yahoo! Directory (2009), Google Directory (2009), MSN Directory (2009), or the Open Directory (2009) (see examples of subject directories below).

A subject directory is different from a search engine in that its primary function is gathering links to other Websites and categorizing them. For example, in Google Directory assessment-related information can be found under several categories:

1. Reference > Education > Educational Testing > Testing Research
2. Reference > Education > Instructional Technology > Course Website Software
3. Computers > Software > Online Training

Many directories now offer internal search services based on a set of unique terms or descriptors developed by their creators; therefore, it is important to consult with each search the help pages provided by each particular directory. Using unique keywords, multiple search terms, and exact-phrase search also can produce better results. Thus, a directory search for [“assessment rubric” “speech communication”] in Google produced only 243 Web pages.

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Such indispensable general resources as full-text electronic databases, periodical indexes, abstracting services, and other access tools available online through various vendors (e.g., ProQuest, EBSCO Host, ComIndex, and ComAbstracts), have already been evaluated by communication scholars. For example, an excellent review of Internet resources for communication research can be found in Rubin, R. B., Rubin, A. M., Haridakis, P., & Piele, L. J. (2010). *Communication research: Strategies and sources* (7th ed.). Boston, MA: Wadsworth.

**Example: Google Search Tips**

<i>Google Search Tips</i>	<i>Suggested Use</i>	<i>Examples</i>
<b>Boolean Operators</b> OR (capitalized) - (to exclude)	Equivalent or synonymous terms; AND is implied as default	<ul style="list-style-type: none"> <li>• classroom assessment</li> <li>• assessment OR evaluation</li> <li>• testing OR evaluation OR ranking</li> <li>• testing -ranking</li> </ul>
<b>Forced Phrase Search</b> “ ”	Requires all pages to contain your terms together in a phrase	<ul style="list-style-type: none"> <li>• “assessment tools”</li> <li>• “Googling to the max”</li> </ul>
<b>Similar Pages</b> <u>Similar pages</u> related:	Locates pages based on links to and from a page and ranking of similar pages	<ul style="list-style-type: none"> <li>• Click Similar pages link at the end of most results</li> <li>• related:searcheric.org</li> </ul>
<b>Limiting by Domain</b> site:	Requires terms to be in these types of documents (.doc, .pdf, .xls, .ppt, etc.)	<ul style="list-style-type: none"> <li>• communication assessment site:edu</li> <li>• “oral communication rubric” site:edu OR site:org</li> </ul>
<b>Limiting by File Type</b> filetype:	Requires terms to be in these types of documents (.doc, .pdf, .xls, .ppt, etc.)	<ul style="list-style-type: none"> <li>• scoring rubric filetype:doc</li> <li>• RSS feeds filetype:ppt</li> </ul>
<b>Field Searching (in title)</b> intitle:	Requires terms to occur in the <Title> field or part of the HTML <Head>	<ul style="list-style-type: none"> <li>• intitle:“communication association”</li> <li>• intitle:testing standards OR evaluation site:gov</li> </ul>

Adapted from *Googling to the max: Getting the most out of Google*. (2004-2005). Teaching Library Internet Workshops, University of California Berkeley. Retrieved April 30, 2006, from <http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/Google.html>

**Example: Subject Directories**

<i>Subject Directories</i>	<i>Web Address</i>
<b>Google Directory</b>	<a href="http://www.google.com/dirhp">http://www.google.com/dirhp</a>
<b>Yahoo! Directory</b>	<a href="http://dir.yahoo.com">http://dir.yahoo.com</a>
<b>MSN Directory</b>	<a href="http://specials.msn.com">http://specials.msn.com</a>
<b>The Open Directory</b>	<a href="http://www.dmoz.org">http://www.dmoz.org</a>

To obtain a better understanding of the body of knowledge related to assessment in the communication discipline, the use of a cluster search is most practical. Clustering refers to a search engine's ability to organize results into related groups, or clusters. A new generation of online search engines like Gigablast (2009) can narrow down a large set of search results and organize them into categorized folders (see examples below). Vivisimo, Inc. has developed Clusty (2009), a meta-search engine that was started in Pittsburgh in 2004 and queries through Ask (2009), MSN, the Open Directory, and several other top engines to provide clustered results.

Although the query [classroom assessment OR evaluation] produced 20,600,000 pages, only 217 clustered results were displayed by Clusty in the results' left frame under such categories as "Techniques" (55 items), "Rubrics" (17), "Program" (15), "Performance" (15), etc. The cluster "Curriculum" contains nine documents. Still in its early phases, clustering technology seems very promising—though, at this stage, subcategories often overlap.

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### **Examples: Cluster Search Engines**

<i>Cluster Search Engines</i>	<i>Web Address</i>
<b>Clusty</b>	<a href="http://clusty.com">http://clusty.com</a>
<b>Gigablast</b>	<a href="http://www.gigablast.com">http://www.gigablast.com</a>
<b>Vivisimo</b>	<a href="http://vivisimo.com">http://vivisimo.com</a>

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In order to locate a specific item, such as an article or book, it is best to consult several prime engines, a meta-search engine, a cluster search engine, or a specialized search (see examples of each type below). For instance, Google Scholar (2009) is a good search tool specifically dedicated to academic content. Besides, Google offers a number of search enhancements ranging from a spelling checker and custom search preferences to "Cached" links that load a page the way it looked when an automatic Web crawler last indexed it.

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### **Examples: Prime Search Engines**

<i>Major Search Engines</i>	<i>Web Address</i>
<b>AlltheWeb</b>	<a href="http://www.alltheweb.com">http://www.alltheweb.com</a>
<b>Ask/Teoma</b>	<a href="http://www.ask.com">http://www.ask.com</a>
<b>Google</b>	<a href="http://www.google.com">http://www.google.com</a>
<b>MSN</b>	<a href="http://www.msn.com">http://www.msn.com</a>
<b>Yahoo!</b>	<a href="http://www.yahoo.com">http://www.yahoo.com</a>

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One of the most useful features is the "Search within results" link at the bottom of every page of search results, which allows users to apply more specific search criteria to a set of initially located items. Clicking on the "Similar" link for a particular result delivers related information based on Google's page-ranking algorithm and usually is very effective. Advanced search options also are useful for performing an exhaustive search. For instance, entering ["communication assessment" site:edu] into Google produced 6,320 items, all of which occurred within the education domain.

**Examples: Meta-Search Engines**

<i>Meta-Search Engines</i>	<i>Web Address</i>
<b>Dogpile</b>	<a href="http://www.dogpile.com">http://www.dogpile.com</a>
<b>Ixquick</b>	<a href="http://www.us.ixquick.com">http://www.us.ixquick.com</a>
<b>MetaCrawler</b>	<a href="http://www.metacrawler.com">http://www.metacrawler.com</a>
<b>SurfWax</b>	<a href="http://www.surfwax.com">http://www.surfwax.com</a>

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**Examples: Specialized Search Tools and Resources**

<i>Specialized Search</i>	<i>Web Address</i>
<b>Academic Index</b>	<a href="http://www.academicindex.net">http://www.academicindex.net</a>
<b>Google Scholar</b>	<a href="http://scholar.google.com">http://scholar.google.com</a>
<b>InfoMine</b>	<a href="http://infomine.ucr.edu">http://infomine.ucr.edu</a>
<b>Librarians' Internet Index</b>	<a href="http://www.lii.org">http://www.lii.org</a>
<b>Questia Online Library</b>	<a href="http://www.questia.com">http://www.questia.com</a>
<i>Blog Search</i>	<i>Web Address</i>
<b>Google Blog Search</b>	<a href="http://blogsearch.google.com">http://blogsearch.google.com</a>
<b>IceRocket</b>	<a href="http://www.icerocket.com">http://www.icerocket.com</a>
<b>Technorati</b>	<a href="http://technorati.com">http://technorati.com</a>
<i>Feed Readers</i>	<i>Web Address</i>
<b>FeedReader</b>	<a href="http://www.feedreader.com">http://www.feedreader.com</a>
<b>Newsgator</b>	<a href="http://www.newsgator.com">http://www.newsgator.com</a>
<b>RSSReader</b>	<a href="http://www.rssreader.com">http://www.rssreader.com</a>
<i>Archived Web</i>	<i>Web Address</i>
<b>Wayback Machine</b>	<a href="http://www.archive.org">http://www.archive.org</a>
<i>Deep Web</i>	<i>Web Address</i>
<b>CompletePlanet</b>	<a href="http://www.completeplanet.com">http://www.completeplanet.com</a>
<b>Direct Search</b>	<a href="http://www.freepint.com/gary/direct.htm">http://www.freepint.com/gary/direct.htm</a>
<b>Intute (former Resource Discovery Network)</b>	<a href="http://www.intute.ac.uk">http://www.intute.ac.uk</a>

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Search technology evolves, and Web researchers can stay current by checking SearchEngineWatch (2009), self-reported as an e-marketing tool. SearchEngineWatch also provides continuously updated, free-access articles and links for search engine users, including search engine lists, search engine reviews, and search tools.

## Educational Websites

Educational Websites provide an array of online resources related to academic assessment, including meta-lists of links to collections of assessment tools, individual sites of educational institutions, assessment guidelines, e-journals, and handbooks. In addition, the educational domain includes dynamic content, such as assessment-related electronic discussion lists, blogs, RSS feeds, and podcasts.

**General Assessment Resources.** Advanced search options offered by major search engines allow results limitation by specific criteria, including domain type, file type, language, and date the site was last updated. The first item generated by an advanced query for [“assessment resources” site:.edu], by both Google and Yahoo! Search engines, was a meta-list of Internet Resources for Higher Education Outcomes Assessment maintained by North Carolina State University (2009).

The Website was organized into seven broad categories: (a) general resources; (b) assessment handbooks; (c) assessment of specific skills or content; (d) individual institutions’ assessment pages; (e) state boards and commissions; (f) accrediting bodies; and (g) student assessment of courses & faculty. The first group encompassed links to other collections of assessment links, archives of articles, discussion groups, and other resources. The Website had a site map, an A-to-Z glossary, and an internal search capability (although rather limited).

The University of Massachusetts, Amherst (2009), site offered “how-to” handbooks on a variety of assessment topics, guidelines for curricula, program and institutional assessments, an assessment bulletin and a newsletter, specific survey examples, and final reports.

*Assessment Manual*, posted on the University of Wisconsin-Madison Website (2009), focused on developing assessment plans at the departmental level. The Central Queensland University in Australia (2009) maintains an online review of the world’s best practices in higher-education assessment. Features of this site include an extensive list of online journals covering issues related to assessment, and a directory of electronic discussion forums of interest to higher-education assessment practitioners.

**Listservs, Blogs, RSS, and Podcasts.** The EDTECH (2009) electronic discussion list, sponsored by the H-Net international consortium of educators, focused on the advancement of teaching in social sciences and the humanities through the use of educational technology. The listserv has approximately 3,500 subscribers and is viewed by thousands more through various online news groups in 50 countries. Another listserv, Assessment in Higher Education (ASSESS) (2009), unites U.S. higher-education administrators and faculty members of similar scholarly, pedagogical, and professional interests and focuses exclusively on assessment. It is hosted by the University of Kentucky at Louisville’s College of Education. The GENED-ASSESS (2009) offers a listserv focused on issues related to general-education assessment.

Many previously active listservs devoted to assessment have given way to blogs—online journals written and read by people of similar interests. A number of specialized search engines developed by commercial providers index blog contents. Among them are Google Blog Search (2009), IceRocket (2009), and Technorati (2009) (refer to Examples: Specialized Search Tools and Resources). Most of these tools can refine the search by date (e.g., limit it to past month, week, day, or search for blog postings only within the past hour). In addition to keyword and exact phrase search options, Google’s advanced blog search can filter the results by author, URL, date, and language.

Another growing trend relates to the proliferation of syndicated content through Really Simple Syndication (RSS). RSS is a special XML-based content syndication format that helps searchers avoid the conventional methods of looking for information on the Web. RSS feed readers (also known as aggregators) allow users to keep track of frequently updated content by subscribing to specific feeds and retrieving information from a large number of Websites, blogs, and podcasts all in one place.

While institutions of higher learning have been relatively slow to adopt RSS feeds, the *Chronicle of Higher Education* (2009) has been offering news feeds and information updates on higher-education issues, including assessment. EDUCAUSE Learning Initiative (2009) podcasts interviews with e-learning and IT professionals, higher-

education administrators, and instructional technology practitioners. In order to receive these updates, subscribe to a Web-based service like Bloglines.com or Newsgator.com, or download a desktop version of an aggregator such as FeedReader (2009) (refer to Examples: Specialized Search Tools and Resources).

On the Web, content is updated constantly and changes very quickly. Quite often users run into an error message such as, “Sorry ... The URL you requested is not available.” When this happens, the Internet Archive Wayback Machine (2009) offers a simple solution: Entering into the search field a URL for the missing Web page prompts the engine to retrieve an archived version of the site. Archiving the Internet started in 1996 as a project of California-based Alexa Internet, purchased by Amazon.com in 1999. The Wayback button first appeared as part of Alexa Toolbar in 2001, and later as the Wayback Machine search engine.

### Government Websites

Government-sponsored collections of electronic documents on the Web provide valuable resources for classroom teachers, curriculum specialists, and researchers. Along with hundreds of public and private Web databases that are “invisible” to search robots, they compose what is known as the “deep Web.” The deep Web has been estimated to be 500 times larger than the “fixed” Web (University Libraries, 2006). The term “deep Web” relates to information stored in remote databases that produce results “on the fly” and are accessible only by query. These pages are not indexed by regular search engines and directories. To search the deep Web requires identifying portals linked to databases that contain relevant information.

**General Resources.** The U.S. government’s official Web portals, including USA.gov (former FirstGov.gov) (United States Government, 2009a), USASearch.gov (United States Government, 2009b), and Ed.gov (U.S. Department of Education, 2009a), among others, offer a good starting point for searching the deep Web. FedStats.gov (United States Government, 2006c) is a gateway to statistical information from more than one hundred federal agencies, such as the Federal Communications Commission, United States Census Bureau, Centers for Disease Control and Prevention, and Federal Aviation Administration. Visitors to the site can search for assessment information by topic, agency, and geographic region. Choosing “education” in the A-to-Z topics index yields a list of subcategories including “assessments.” Within “assessments” is a link to the National Assessment of Educational Progress Website (NAEP) (2009). NAEP represents the only enduring assessment of student knowledge in various subject disciplines in the nation and is known as “the Nation’s Report Card.” Statistical agencies are organized by subject and can be searched using access tools specific to that agency. The National Center for Education Statistics (NCES) (2009) is one of the primary Federal agencies for collecting and analyzing data on educational assessment. The center publishes *Digest of Educational Statistics*, which contains compilations of statistical information, and *Education Statistics Quarterly*, featuring full text of reports and trend analyses on an array of issues from early childhood to postsecondary education. In addition to high-quality reports, digests, and data analyses, the site provides access to RSS-enabled feeds of NCES headlines and the latest news.

Online resources offered at the state level help with comparisons of educational standards across schools in the state, and also ensure existing practices in curriculum design and assessment systems are aligned with statewide educational goals. For instance, the home page of the Texas Education Agency (TEA) (2009) serves as a gateway to data and electronic documents relevant to education in the State of Texas. TEA’s site includes links to school district profiles published annually since 1987-88, statewide information on graduation requirements, and results of College Admissions Testing. The full text of the *Texas Education Code*, as well as other statutes, can be retrieved from the site.

**Guidelines for Assessment.** The National Postsecondary Education Cooperative (NPEC) is a voluntary partnership of government agencies and postsecondary institutions funded by the Department of Education. The NPEC’s two-volume *Sourcebook on Assessment* (2005) offers extensive guidelines for selecting, developing, and implementing specific types of higher-education assessments.

The first volume reviews academic measures of learning outcomes, as well as several commercially written tests and assessment instruments developed at the local level. The sourcebook includes templates for evaluating student writing, critical thinking, and problem-solving skills. The second volume presents results of eight case studies, conducted at various institutions across the U.S., providing insights into a number of issues central to higher-education assessment: (a) the scope of assessments, (b) availability and costs, (c) levels of assessment, (d) reliability and validity of measurements, and (e) challenges in creating new measures.

According to Pew Internet and American Life Project (Horrigan, 2004), the volume of traffic on government-sponsored Websites grew 50 percent just in two years; two out of five users who visited the domain looked for specific government documents or statistics. Although navigating through government sites and finding obscure information has been difficult for many people, that situation is improved with the introduction of portals.

## Commercial Services

There is no shortage of commercial e-testing and evaluation tools and services. With a quick Google search for “online testing” or “online assessment” one can find a number of electronic test drivers, rubrics, and survey generators. Among them are Formsite (2009), MindFlash™ (2009), ProExams.com™ (2009), Rubric Builder (2009), QuestionMark.com™ (2009), and MyGradeBook (2009). Test Central, a division of Test.com, Inc. (2009), offers a system for distance-learning exams, quizzes, and surveys that can be administered interactively through the Web. In addition to survey-construction tools, SurveyMonkey.com (2009), QuestionPro (2009), SuperSurvey™ (2009), and ZapSurvey (2009) offer Web-based survey-hosting services.

**Course Management Systems.** During the last decade, course management systems (CMS) increasingly have been adopted by institutions of higher learning (Meerts, 2003). According to the Campus Computing Survey, by 2002 CMS was used in 30% of all courses in four-year institutions (Green, 2002). Among the most widely adopted commercial products are Blackboard™ (2009), WebCT (2006), eCollege (2009), Angel (2009), Desire2Learn (2009), PageOut® (2009), and Scholar360 (2009).

By 2004, the Blackboard platform was used in 2,600 institutions, mostly within the U.S., while WebCT was adopted by 2,200 institutions in 80 countries. In October 2005, these two top-rated, competing companies merged, expanding nationally and globally to include the United States, United Kingdom, Ireland, the Netherlands, Spain, Finland, Canada, South Africa, Australia, Japan, Singapore, and Hong Kong (Blackboard Media Center, 2005).

Web-based in-course assessments, administered via CMS, support formal and informal measurements like traditional multiple-choice questions, fill-in-the-blank, matching, short-answer, and essay instruments. They can be utilized successfully for formal or semi-formal exams, online tutorials and practice exercises, instructor feedback, and student self-evaluation. Overall, Web-based classroom assessment tools embedded in CMS provide opportunities to integrate interactivity, asynchronicity and non-linearity, customize instruction—and to adapt the teaching process to students’ individual learning styles.

**Publisher-Provided Test Tools.** Many publishers develop assessment tools accompanying textbooks, making them accessible via companion Websites. Harcourt Assessment Center has developed an e-testing model allowing customers to order and administer Web-based tests and view the results online. Instructors’ test banks provided by Thomson Learning, through ExamView® Pro desktop software, also can be formatted to work in online environments. Thomson’s self-assessment quizzes allow students to test their knowledge and skills within the comfort of their homes.

Prior to 2007, McGraw-Hill Higher Education (2006) textbook publisher distributed GradeSummit, a diagnostic self-assessment and exam preparation tool that students could purchase with a McGraw-Hill text for a small additional fee. McGraw-Hill has worked directly with leading content-management companies to develop course cartridges for Blackboard™, WebCT, eCollege, and PageOut® e-learning systems. One of the recent offerings is Homework Manager (McGraw-Hill Higher Education, 2009), a Web-based homework management system available for both students and instructors using McGraw-Hill textbooks. Homework Manager enables self-graded practice of chapter material through unlimited customized tests and quizzes and immediate feedback. Homework Manager Plus adds a level of interactivity by adding instant access to an online version of the textbook.

Thomson Learning (2006) began offering three levels of WebTutor™, a customizable Web-savvy interactive tutoring application: (a) basic WebTutor™, (b) WebTutor™ Advantage, and (c) WebTutor™ Advantage Plus. The basic WebTutor™ application provides textbook-specific online tutoring with auto-graded quizzes, discussion topics, and related Web links. WebTutor™ Advantage integrates interactive content such as animations, simulations, and video clips that allow students to study at their own pace, and WebTutor™ Advantage Plus adds access to an online version of the textbook. WebTutor™ is available on Blackboard™, WebCT, eCollege, Educator!, Angel, and Desire2Learn platforms. The current Web Tutor is distributed by Cengage Learning (2009) as a course cartridge for Blackboard Learning System 6, 7, 8, and 9.

**Electronic Assessment.** Among the first companies to develop computer-based assessments was Assessment Systems Corporation (ASC) (2009). This firm has specialized in computerized testing since 1979 and has developed, published, and distributed a variety of software packages through a wide network of partners. One of its products, FastTest, is a test-development utility for Windows that integrates an item banker and an assembly system. FastTest Pro supports online testing and can be administered over an environment with a client-server application. ASC products include Internet-based applications for delivery, administration, and analysis of tests, surveys, and feedback forms.

Compared to CMS-enabled in-course assessments, stand-alone commercial testing products provide much greater functionality, going far beyond the standard set of measurement techniques and features available through a typical CMS system like Blackboard™. ASC-distributed tools can support up to twenty multiple-choice responses, utilize flexible question types, user-formatable outputs, item histories, and real-time randomization and results monitoring. However, the price range for these tools is also beyond the reach of many educational institutions, and many schools prefer an all-embracing course-creation and management system to a fully customizable test-development and delivery package.

**Electronic Portfolios.** Following a trend set forth by electronic course-management systems, the adoption of e-portfolios in education shows consistent and steady growth. An e-portfolio is an electronic collection of documents and artifacts that demonstrate accomplishments of students, teachers, administrators, institutions, or communities. The most common formats in use are Web-based, CD-ROM, and DVD.

A comprehensive review of Web-based electronic portfolios conducted by ePortConsortium (2003) pointed to an increasing number of commercial e-portfolio applications such as ePortaro (2009), Epsilen (2009), and iWebfolio (2009), frequently employed by institutions of higher learning. An online electronic-portfolio system can be installed by an institution or hosted remotely. Typically, a portfolio can import an assortment of text, graphics, and multimedia file formats, support export of data in ASCII text, as well as integrate with CMS, PeopleSoft, and other Enterprise Resource Planning systems.

According to the EDUCAUSE (2009) Website, e-portfolios are used for teaching evaluation, student advisement, career preparation, program assessment, self-studies, and accreditation purposes. Electronic portfolios are viewed as a major development in educational technology since the introduction of CMS (Cambridge, Cambridge, & Yancey, 2009; Jafari & Kaufman, 2006; Lorenzo & Ittelson, 2005).

Careful selection of electronic-portfolio software is essential since most of the systems are student controlled, making them inappropriate for academic-assessment purposes. Because they allow students to change objectives and artifacts at will, such products do not assure valid results. At Tarleton State University (2009), several years of searching for an electronic-portfolio system providing valid student-learning assessment culminated with only one product meeting that criterion: ePortfolio2 by Chalk & Wire Learning Assessment, Inc. (2008). Another important aspect of this system is that it provides fast, easy data-analysis reports.

Overall, it is evident that commercial software developers and vendors such as Blackboard, Inc., eCollege, and Nuventive (2009), collaborate with educational institutions and nonprofit organizations to enhance the value of Web-based assessment tools, and to design a common set of technical standards across platforms and institutions.

### Nonprofit Organizations

All search strategies produce significant findings for nonprofit organizations having assessment information or services online. Multiple professional associations—American Psychological Association (2009), Association of Test Publishers (2009), National Association of Test Directors (2009), etc.—have addressed various issues related to the use of assessment in education: ethical guidelines, standards for test development, access to tests, and information about testing.

**Assessment and Ethics.** Established in 1985, the Joint Committee on Testing Practices (JCTP) (2009) provides guidelines for both test developers and test users in the *Code of Fair Testing Practices in Education* (2004). The code offers a broad understanding of the underlying ethics related to educational assessment.

The goal of fairness to all test takers should guide standardized-test developers and those who use the tests for assessment. Code authors also encourage classroom teachers to use the code when developing classroom tests. Links from the main page direct site visitors to subcategories related to developing and selecting appropriate tests, administering and scoring tests, reporting and interpreting test results, and informing test takers about the outcomes.

The Association of Test Publishers (ATP) (2009a) approaches ethics and assessment from the perspective of access to testing. A division of ATP specifically relates to educational testing (Association of Test Publishers, 2009b).

The National Association of Test Directors' Website hosts a *Code of Professional Responsibilities in Educational Measurement*, developed by the National Council on Measurement in Education (1995). This code contains specific language related to multiple aspects of educational-measurement conduct, ranging from student cheating on tests to ensuring the development of appropriate assessment instruments and services.

**Testing and Evaluation.** Educational Testing Service (ETS) (2009a) and American College Testing (ACT) (2009a) have Websites providing information about testing and evaluation services. Both nonprofit organizations maintain extensive product information about available tests.

Specifically related to communication assessment, is *Criterion*<sup>SM</sup>, a Web-based writing-evaluation service (Educational Testing Service, 2009). *Criterion*<sup>SM</sup> is based on the application of *e-rater*<sup>®</sup> (an automated essay-scoring engine) and *Critique*<sup>SM</sup> *Writing Analysis Tools* (a diagnostic feedback technology). *Criterion*<sup>SM</sup> can be accessed through the products directory tab at the ETS Website. ACT<sup>®</sup> also has a writing-evaluation test (American College Testing, 2009b), designed as an admissions instrument but additionally suggested as a course-level placement tool.

While Educational Testing Service and American College Testing Websites contain information about online testing services, ETS and accreditation services of communication associations offer guidelines for—and information about—program assessment. In addition, some nonprofits have produced institutional evaluation information online, information on transformative assessment, as well as program and competencies assessment. Finally, nonprofit organizations provide access to a variety of digital resources, including specialized libraries of assessment-related materials.

**Educational Associations.** While professional testing associations provide useful guidelines for assessment in general, educational associations inherently furnish more specific criteria for both program and individual competency assessments. Regional higher-education accreditation associations set guidelines for overall competencies, and these bodies generally require communication competency as a criterion for institutional accreditation (Council for Higher Education Accreditation, 2009).

Academic associations such as the National Communication Association (2009a) define more specific competencies for college graduates. A detailed list of competencies in table format can be viewed and downloaded at the NCA Website (2009b). Communication-technology and information-literacy criteria for higher education have been established by the Association of College and Research Libraries (ACRL) (2009). This document was approved by the ACRL Board of Directors in 2000.

Assessing communication programs within higher education is the focus of significant discussion by numerous communication associations serving higher education, and the National Communication Association (NCA) has provided a significant Web presence related to some of these discussions. The NCA Educational Policies Board statement from 2005 answers questions regarding NCA external program-review resources (2005).

The Association for Education in Journalism and Mass Communication has accreditation criteria and a formal process for external program evaluation (2009). The American Communication Association also offers accreditation services and criteria for program evaluation (2009).

American college presidents founded the Association of American Colleges and Universities (AACU) (2009a) in 1915. The AACU currently provides an alternative to the regional view of institutional assessment. The organizational Website does not hold original information on communication assessment, but it does have a page of links to oral-communication assessment tools and writing-assessment resources (Association of American Colleges and Universities, 2009b).

**Specialized Digital Libraries.** The Education Resources Information Center (ERIC) is a digital library initially sponsored by the Institute of Education Sciences (IES) of the U.S. Department of Education (2009b). The ERIC Clearinghouse on Assessment and Evaluation has become one of the prime resources for assessment-related information. In 1966-2003, the ERIC database consisted of several individual clearinghouses of bibliographic information for education practitioners, scholars, and the general public.

After passage of the Education Sciences Reform Act of 2002, which includes the 2002 National Assessment of Educational Progress Authorization Act (U.S. Public Law H. R. 3801, 2002), the Federal government re-conceptualized the ERIC database with a number of organizational and structural changes allowing access to full-text materials and accommodating online submissions. All documents published after 1993, as well as materials previously sold by the ERIC Document Reproduction Center, now can be downloaded in portable document format (.pdf) free of charge. Although the ERIC Clearinghouse (also known as Ericae.net) is discontinued, its existing holdings can be accessed through Edresearch.org.

The new ERIC information system is accessible online at <http://www.eric.ed.gov>, and the list of indexed items continues to grow. According to the ERIC User Group, more than 20,000 new records were added since June 2005, and more than 560 journal titles and 380 non-journal sources were under agreement in January 2006 (Corby, 2006). Some of the resources available in the earlier version of ERIC migrated to nonprofit sites; others are still accessible through various vendor interfaces. Thus, the Test Review Locator including the *Tests in Print* and *Mental Measurements Yearbook* moved to the Website of the Buros Institutes of Mental Measurements (n.d.).

The most effective way to conduct an ERIC search is by using “descriptors” or specific terms from a controlled vocabulary maintained in the ERIC Thesaurus. A Thesaurus search for “assessment” identifies a list of 25 assessment-specific descriptors such as “authentic assessment,” “curriculum-based assessment,” “institutional assessment,” or “large-scale assessment.” The ERIC search supports Boolean operators (AND, OR, and NOT), truncation using the asterisk as a “wildcard”, and forced phrase search (“ ”).

Additionally, the MyERIC service (registration required) allows users to perform personalized searches, save search criteria and results in a temporary online Clipboard, and organize items in folders—but MyERIC capacity is limited; only ten searches, five folders, and 50 records can be kept at a time.

### Conclusion

The Internet offers a wealth of valuable information on assessment to the widest possible audience. Many educational institutions host Websites that contain useful resources ranging from annotated meta-lists of Web links and assessment handbooks to dynamic content such as assessment-focused listservs, blogs, and Web feeds.

Government-sponsored sites enable access to large-scale online databases, specialized libraries, and rich collections of documents focused on various aspects of assessment. Educational Websites often include guidelines for assessments developed by individual departments, colleges, and universities, while governmental Websites provide guidelines establishing learning standards and maintain those standards across institutions, states, and regions.

Program assessment and accreditation services and criteria, as well as ethical guidelines for educational evaluation and testing, have been the center of attention for higher-education associations and other nonprofit organizations, as reflected in their online presence. Meanwhile, available commercial services vary widely in their offerings of elaborate e-assessment tools, Web-based course management utilities, publisher-provided quizzes, online test and rubric builders, and electronic portfolio systems.

Equipped with the knowledge of different online search strategies and major gateways to assessment resources, on the Web communication educators find ample opportunities to conduct effective academic assessments and engage in related research. Of course, online resources are tremendously dynamic, changing constantly, which makes it impossible to provide an exhaustive, current review. Hence, it is wise to employ the information in this chapter as a foundation on which to build, adding new electronic tools as they become available.

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