Key E-learning Standards In Brief

The Airline Industry CBT Committee, more commonly known as **AICC**, was one of the first groups to establish standards for how computer-based training (CBT) should communicate with computer-managed instructions systems (CMI) designed to track training activities. The group started in 1988, and the AICC CMI Guidelines for Interoperability, first developed in 1993, formed the basis for much of the subsequent work that has been done to ensure that an e-learning course created for use in one learning management system (LMS) will also function properly in other systems. In 2014, the AICC formally dissolved and transferred its document archive to Advanced Distributed Learning (ADL), the group behind SCORM and xAPI (more on those below).

The Shareable Content Object Reference Model, or **SCORM** (https://www.adlnet.gov/scorm), is a widely recognized set of standards in the e-learning world. It unites standards from other sources to create a general model for defining, packaging, and managing learning objects. An LMS that is SCORM-compliant should provide the ability to import, launch, and track a lesson or course that has been developed according to the SCORM model. Additionally, an a learning content management system (LCMS) or an LMS that features content management capabilities should be able to recognize and manipulate the shareable content objects (SCOs), which comprise a piece of learning content.

The Experience API (application program interface), also known as **xAPI** or **Tin Can** (https://www.adlnet.gov/xapi), is the evolution of SCORM and is meant to address what are major shortcomings of SCORM—SCORM doesn't track informal or self-directed learning; can't be used to launch and track native mobile apps; requires a steady Internet connection; focuses on scores (usually a single score) and completions in courses and doesn't provide a good way to capture detailed test data or to assess learners after the course is complete. xAPI is built around simple subject-verb-object statements that allow a learning record store (LRS) to collect data about a wide variety of real-world learning activities, including activities not contained in an LMS.

A central focus of the **IMS Global Learning Consortium** is how learning content can be tagged so that it can easily be discovered and reused, whether in a single system or across multiple, disparate systems. The various IMS specifications (http://www.imsglobal.org/specifications.html), which include **Learning Tools Interoperability (LTI)**, are at the root of terms like *reusable learning object* as well as many current approaches to interoperability. IMS standards are based on the extensible markup language, or XML, specification created by the World Wide Web Consortium (W3C). XML is the language used for tagging learning content objects.

Medbiquitous (http://www.medbiq.org) is an organization focused on leveraging XML to establish a set of interoperable standards exchanging educational content and tracking learner activities and profiles as part of healthcare education and competence assessment.

Section 508 (http://www.section508.gov) refers to the Rehabilitation Act of 1973 and subsequent amendments designed to address the accessibility of electronic and information technologies, including the Web, by people with disabilities. Federal agencies are required—with some limited exceptions—to meet standards defined under Section 508 when purchasing electronic and information technologies, which means that any entity hoping to sell to the federal government must ensure that its products comply to the standards. Requirements aside, many developers and consumers of e-learning feel that compliance with Section 508 is simply the right thing to do.