

# Chapter 38

## Learning through Web-Based Authoring Tools

**Tony Lee**

*University of Oklahoma, USA*

**Doo Hun Lim**

*University of Oklahoma, USA*

### ABSTRACT

*The Web-based authoring tools are great additions to online education and training programs. This chapter provides a portrait of roles and impacts of Web-based authoring tools in online learning environments. With all the unique functions and options that are available in Web-based authoring tools, it is not required for instructors and trainers to be Web development experts to create quality online learning instructions that meet the needs of the multi-generational learners (i.e., traditionalist, baby boomer, generation X, and generation Y). In addition, the Web-based authoring tools enable instructors and trainers to create media-rich learning instructions and transform dry Web content into engaging and exciting learning content. Besides recreating and transforming Web content, Web-based authoring tools also play an important role in expanding learners' attention spans and their readiness to learn.*

### INTRODUCTION

A review of the literature shows that online education has been growing rapidly in the past few years across higher education institutions and corporate organizations (Boling, Krinsky, Saleem, & Stevens, 2011; Liegle & Janicki, 2006). According to Allen and Seaman (2010), for the past 6 years, the number of students who enrolled in online education has grown substantially (i.e., 17% growth rate) compared to the traditional higher education enrollments (1.2% growth rate). The changes in technology, demographics of employees, globalization, and financial incentives have also driven corporate organizations to adopt online training systems and methods for effective and timely learning and performance improvement (Ahmad & Tarmudi, 2012). The flexibility and convenience of online education and training programs have provided many benefits to learners, instructors, and trainers. Learners who are working full-time and juggling different responsibilities in life (e.g., family, work, and community involvements) have an

DOI: 10.4018/978-1-5225-0783-3.ch038

opportunity to learn and receive training without having to compromise important personal times in their life (Daugherty & Funke, 1998; Virvou & Alepis, 2003). Instructors and trainers not only have the capacity to develop and implement their training programs at any time and any place, but they also have the capacity to grade their learners' assignments and provide feedback to them at their convenience. Despite all these benefits, some learners, instructors, and trainers still have reservations towards online education and/or training programs. Instructors and trainers who were born before the technology era are concerned that they are not able to handle or resolve any technical problems that may incur in delivering training programs through the Internet. On the other hand, older adult learners who are new to online education or online training programs are fearful that their unfamiliarity with computer hardware, multimedia software or web authoring and conference tools may hinder online learning (Kuchinke, Aragon, & Bartlett, 2001). Furthermore, learners who perceive the role of instructor-learner interactions as the determining factor of instructional satisfaction and academic success are concerned that online education or training programs may not be able to deliver those human interaction elements that they receive in the classroom settings (Kearsley & Moore, 1996).

Web-based authoring tools, the software packages that allow authors (i.e., instructors or trainers) to create interactive and media-rich documents on webpages, are great solutions for instructors and trainers in addressing their instructional development and implementation matters (Mai, n.d.). Web-based authoring tools range from simple tools (e.g., Prezi or Articulate) that allow instructors and trainers to convert their instructional PowerPoint slides to online learning materials to advanced software that enables authors to create complex online learning content (e.g., Macromedia Dreamweaver, NetObjects Fusion, ZebraZapps, or Course Builder) (Berking, 2013). Web-based authoring tools can be classified into two categories based on the purpose of instruction. One is to use them to simply develop and teach pedagogically oriented instructional content. The other is to create interaction rich learning environments so that learners can be actively engaged and practice intended knowledge and skills to immediately perform during the instruction or on the job (Murray, 1999). In general, the authoring tools not only enable instructors and trainers to build interactive online content for their teaching and training sessions, but they also enable instructors and trainers to incorporate different functions or features such as animations, audio, videos, discussion forums, or hyperlinks to the learning instruction sites to capture their learners' interest and motivation.

## **ROLES OF WEB-BASED AUTHORING TOOLS IN LEARNING ENVIRONMENTS**

Web-based authoring tools such as Microsoft Dreamweaver, NetObjects Fusion, or SyberWorks Web Author are great additions to online education. They are easy and cost-effective alternative tools to develop and implement instructional or training programs (Virvou & Alepis, 2003). In using these kinds of tools, instructors and trainers are not required to become web design experts in developing web rich instructional content and interactions. They can start creating and developing their instructional content as soon as they have familiarized themselves with the basic functions of those web-based content authoring tools.

Nowadays, web-based authoring tools are commonly used in for-profit and not-for-profit U.S. higher education institutions and corporate organizations for online education and training programs. In recent years, many U.S. institutions have started to expand their business prospects by creating and developing online degree programs that enable them to recruit more U.S.- and foreign-born students (Howell, Williams, & Lindsay, 2003; Lederman, 2013). For example, the Penn State World Campus, one of the

8 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/learning-through-web-based-authoring-tools/163554](http://www.igi-global.com/chapter/learning-through-web-based-authoring-tools/163554)

## Related Content

---

### Active Blended Learning at Scale: University-Wide Writing Programmes

Andrew Struan (2021). *Cases on Active Blended Learning in Higher Education* (pp. 106-121).

[www.irma-international.org/chapter/active-blended-learning-at-scale/275676](http://www.irma-international.org/chapter/active-blended-learning-at-scale/275676)

### Employing Active Learning and the Flipped Classroom Model in Developing Countries: Opportunities and Challenges

Ajlan M. Alshehri (2016). *Handbook of Research on Active Learning and the Flipped Classroom Model in the Digital Age* (pp. 272-285).

[www.irma-international.org/chapter/employing-active-learning-and-the-flipped-classroom-model-in-developing-countries/141008](http://www.irma-international.org/chapter/employing-active-learning-and-the-flipped-classroom-model-in-developing-countries/141008)

### Blended Media: Student-Generated Mash-ups to Promote Engagement with Science Content

Garry Hoban, Wendy Nielsen and Christopher Hyland (2016). *International Journal of Mobile and Blended Learning* (pp. 35-48).

[www.irma-international.org/article/blended-media/162723](http://www.irma-international.org/article/blended-media/162723)

### Individual Learning Strategies and Choice in Student-Generated Multimedia

William T. McGahan, Hardy Ernsand Laurel Evelyn Dyson (2016). *International Journal of Mobile and Blended Learning* (pp. 1-18).

[www.irma-international.org/article/individual-learning-strategies-and-choice-in-student-generated-multimedia/162721](http://www.irma-international.org/article/individual-learning-strategies-and-choice-in-student-generated-multimedia/162721)

### A Spotlight on Lack of Evidence Supporting the Integration of Blended Learning in K-12 Education: A Systematic Review

Mark Poirier, Jeremy M. Law and Anneli Veispaak (2019). *International Journal of Mobile and Blended Learning* (pp. 1-14).

[www.irma-international.org/article/a-spotlight-on-lack-of-evidence-supporting-the-integration-of-blended-learning-in-k-12-education/236079](http://www.irma-international.org/article/a-spotlight-on-lack-of-evidence-supporting-the-integration-of-blended-learning-in-k-12-education/236079)