



Volume 61 | Issue 2

Article 6

12-1-2018

Online Library Tutorials: A Literature Review

Paul A. Hartog

Faith Baptist Bible College and Theological Seminary

The Christian Librarian is the official publication of the Association of Christian Librarians (ACL). To learn more about ACL and its products and services please visit [//www.acl.org/](http://www.acl.org/)

Follow this and additional works at: <https://digitalcommons.georgefox.edu/tcl>

Recommended Citation

Hartog, Paul A. (2018) "Online Library Tutorials: A Literature Review," *The Christian Librarian*: Vol. 61 : Iss. 2 , Article 6.
Available at: <https://digitalcommons.georgefox.edu/tcl/vol61/iss2/6>

This Article is brought to you for free and open access by Digital Commons @ George Fox University. It has been accepted for inclusion in The Christian Librarian by an authorized editor of Digital Commons @ George Fox University. For more information, please contact arolfe@georgefox.edu.

Online Library Tutorials: A Literature Review



**Paul A. Hartog, Professor and Director of Library Services,
Faith Baptist Bible College and Theological Seminary**

ABSTRACT

In 2009, the *Journal of Web Librarianship* published a literature review covering best practices for creating library online tutorials. These principles included (1) knowing the tutorial's purpose, (2) using standards, (3) collaborating with others, (4) engaging students, and (5) conducting evaluations. The purpose of this current essay is to serve as an updated literature review, culling and synthesizing seven other pedagogical facets from newer literature: (1) technology updates, (2) tutorial maintenance and revision, (3) multimedia learning by gaming, (4) cognitive load theory and chunking, (5) adult education theory, (6) blended and flipped learning, and (7) the importance of ongoing engagement.

Introduction

A flood of online instruction has inundated the higher education landscape (Craig & Friehs, 2013, p. 293; Gonzales, 2014, p. 45). Nearly half of college graduates from the last decade completed at least one online course (Halpern & Tucker, 2015, p. 113). "The options for producing online tutorials are proliferating rapidly as online, distance, and hybrid instruction expands across higher education" (Sherriff, 2017, p. 124). Within information literacy instruction, online tutorials can introduce the library, the library catalog, the electronic databases, and a number of other facets related to the library and the services a library offers (Su & Kuo, 2010, pp. 323-325; Stiwinter, 2013, p. 24; Visser, 2013, p. 80; Scales, Nicol, & Johnson, 2014, p. 243). Specific topics can include numerous venues, such as: narrowing a research topic, utilizing search strategies, and evaluating the quality of sources, just to name a few (McClure, Cooke, & Carlin, 2011, pp. 29-30; Thornes, 2012, p. 86; Hess, 2013, p. 343; Loftis & Wormser, 2016, p. 246).

Such topics can be contextualized through a "structured guidance" that is "discipline-specific" (Sult, Mery, Blakiston, & Kline, 2013, p. 127), whether focusing upon information literacy within science (Weiner, Pelaez, Chang, & Weiner, 2012; Bussmann & Plovnick, 2013; Matlin & Lantzy, 2017), nursing (Walters et al., 2015), geography (Thornes, 2012), or art (Loftis & Wormser, 2016). Furthermore, "Each college is unique in size, population, and programmatic concentrations and in the size and scope of its library" (Loftis & Wormser, 2016, p. 243). Rothera spoke of "triangulating" learning activity design by the learners (their needs, styles, and

competencies), the learning environment (the availability of tools and resources), and the learning outcomes (2015, p 51).¹ Perhaps one could speak of “quadrulating” instructional design by adding the learning discipline as a fourth facet, as more research demonstrates the importance of information literacy instruction contextualized by content discipline.

Blummer and Kritskaya’s 2009 Literature Review

In 2009, the *Journal of Web Librarianship* published a literature review written by Blummer and Kritskaya, entitled, “Best Practices for Creating an Online Tutorial: A Literature Review.”² As the abstract explained:

This article traces the creation of online library instructional tutorials, currently referred to as digital learning objects, in academic libraries, including knowledge of the tutorials’ purpose and potential, collaboration with other individuals, the use of standards, student engagement, and evaluation. The literature review also illustrates the incorporation of multimedia learning theories and assessment strategies in these tutorials (Blummer & Kritskaya, 2009, p. 199).

The purpose of this 2009 literature review composed by Blummer and Kritskaya was to examine best practices in the creation of online tutorials. The introduction declared, “This article seeks to document the best practices in tutorial development based on case studies illustrating librarians’ efforts to create and evaluate Web tutorials for library skills training” (Blummer & Kritskaya, 2009, p. 200). The 2009 review summarized the following five best practices: (1) knowing the tutorial’s purpose, (2) using standards, (3) collaborating with others, (4) engaging students, and (5) conducting evaluations (p. 200).

These five best practices can be explained as follows: (1) “Knowing the tutorial’s purpose” included understanding the benefits, potential users, and existing products, and also conducting a preliminary needs assessment (Blummer & Kritskaya, 2009, pp. 200–202). (2) “Using standards” focused upon the *ACRL Information Literacy Competency Standards for Higher Education* of 2000 but also mentioned the Illinois Professional Teaching Standards and the SCONUL Seven Pillars of Information Literacy Core Model (pp. 202–204). (3) “Collaborating with others” highlighted cooperation with content faculty, administration members, students, and teaching assistants, as well as reliance upon fellow librarians, graphic and instructional designers, and media and programming specialists (pp. 204–206). (4) “Engaging students” concerned adaptability to differing learning styles, student control and direction,

1 Blummer and Kritskaya discuss a triangulation (without the word) of the learner, the content, and the instructional setting (2009, p. 211).

2 Authors often spotlight Dewald, 1999 as the fountainhead of academic literature analyzing library instruction online tutorials (e.g., Su & Kuo, 2010, p. 321; Gonzales, 2014, p. 47; LeMire, 2016, p. 18).

interactive learning, and instructional strategies (pp. 206–209). (5) “Conducting evaluations” considered pilot studies, user comments, pre-tests and post-tests, alpha and beta testing, quantitative surveys, focus groups, and anecdotal observations (pp. 209–211).

An Updated Literature Review: Methodology and Purpose

Asynchronous online tutorials continue to be a major facet of information literacy instruction. The overall trend of research scholarship evidences that online tutorials are at least as effective, and sometimes more effective, than in-person instruction (Gonzales, 2014, p. 46; cf. Stiwinter, 2013, p. 16; Fontane, 2017, pp. 91–93). Moreover, many students (but not all) prefer web-based tutorials over face-to-face instruction (Hess, 2013, p. 335; Fontane, 2017, pp. 91–93).

Online tutorials are convenient to use, since they are available, accessible, scalable, flexible, reusable, customizable, repeatable, and economical (Su & Kuo, 2010, p. 320; Matlin & Lantzy, 2017, p. 98). They can provide on-demand access, multimedia elements, self-paced learning, and interactive features. On the negative side, online tutorials require a time commitment and technical skills to create, and they can become out-of-date fairly quickly (Anderson & Mitchell, 2012, p. 154).

The purpose of this present literature review is to update the Blummer and Kritskaya essay, by examining relevant research since 2009. To accomplish the task, the author searched for published materials on online tutorials in three EBSCOhost information studies databases: “Library, Information Science & Technology Abstracts with Full Texts,” “Library Literature & Information Science Full Text,” and “Library, Information Science & Technology Abstracts.”³

Current Research: Limitations

“Interactivity,” “relevance,” “scalability,” “scaffolding,” and “flexibility” have remained buzzwords in the literature. In a 2013 article, Stiwinter maintained that “interactivity” was “the most frequently mentioned trait in the literature” (2013, p. 19). She also noted, however, that the definition of “interactivity” has varied greatly. As Craig and Friehs recognize, “there is no universally accepted definition of interactivity by the library community” (2013, p. 300). Interactivity often includes such notions as student control, student engagement, and self-pacing. Nevertheless, “The lack of specificity makes it difficult to compare different case studies in order to draw conclusions about current trends in effective online information literacy tutorials” (Sachs, Langan, Leatherman, & Walters, 2013, p. 340).

³ In 2015, Rowman & Littlefield published a book-length study of best practices for online tutorials, in the Practical Guides for Librarians series (Rempel & Slebodnik, 2015). My full review of that particular book appears elsewhere within *The Christian Librarian*.

At times, the research on online tutorials seems to result in contradictory tensions or conflicting results (Aleman & Porter, 2016, p. 66). Students regularly express mixed preferences on a variety of resources and topics (Rothera, 2015, p. 45). “Some students are impatient with lengthy and passive instruction, while others appreciate such detail” (Held & Gil-Trejo, 2016, p. 15). Research has even questioned the conventional wisdom that interactivity is essential to a successful tutorial (Craig & Friehs, 2013, p. 300). Sachs, Langan, Leatherman, and Walters have maintained that, contrary to common assumptions, millennial students learned equally well from “a static, HTML-based tutorial and a dynamic, interactive, audio/video tutorial” (2013, p. 327). Conclusions have also differed concerning whether students prefer mobile retrieval of tutorials (Weiner et al., 2012, p. 195).

Such tensions are unavoidable, since learning contexts, content disciplines, learning styles, background knowledge, and personal preferences vary. Gonzales argues that “the variation in methodologies as well as the disparate factors affecting the outcome of the studies makes direct comparison of their results difficult at best” (2014, p. 52). Many studies have lacked a sufficient sampling, random assignment, and variable consistency (Harkins, Rodrigues, & Orlov, 2011, pp. 36, 41; Craig & Friehs, 2013, pp. 298-299; Visser, 2013, p. 84). An artificially constructed framework and/or an undue dependence upon self-reported data have limited some studies (cf. Harkins et al., 2011, p. 42; Sachs et al., 2013, p. 339). In some pre-test / post-test studies, the data has been skewed by learners who skip viewing the tutorials either because the pre-test questions were too easy or because they knew that the post-test could be retaken to increase scoring (Fontane, 2017, pp. 97-99). Furthermore, bots and web crawlers can artificially increase tutorial usage statistics (p. 100).

More research work is needed within specific areas of cognitive theory. For example, the study of tutorial effectiveness needs to distinguish between immediate and long-term recall (Rothera, 2015, p. 48). Additional research could investigate the transfer of information skills, through course-cross application (Tooman & Sibthorpe, 2012, p. 90). Information literacy skills also need to be examined outside of library settings (p. 91).

Nevertheless, a review of the literature published since 2009 highlights a handful of new emphases: (1) technology updates, (2) tutorial maintenance and revision, (3) multimedia learning by gaming, (4) cognitive load theory and chunking, (5) adult education theory, (6) blended and flipped learning, and (7) the importance of ongoing engagement.

(1) Technology Updates

One naturally expects instructional technologies to shift within a nine-year span. In particular, HTML format and especially Adobe Flash have waned in preference,

while screencasts have primarily overtaken the field (Harkins et al., 2011, p. 33; Craig & Friehs, 2013, pp. 293, 297–298; Visser, 2013, p. 82).⁴ Online tutorial creators have curtailed dependence upon Adobe Flash in part because of incompatibility with various mobile and tablet devices (Thornes, 2012, p. 86; Busmann & Plovnick, 2013, p. 5). In 2013, Sult, Mery, Blakiston, and Kline declared that screencast tutorials are “the most popular method of teaching databases online today amongst academic, medical, and law libraries” (2013, p. 126). In the ever-changing world of screencasts and video-editing, ActivePresenter, Adobe Captivate, Camtasia, HyperCam, Jing, Screencast-O-Matic, ScreenFlow, Screenr, Snagit, and similar programs have all released updated versions since 2009.

Creating online tutorials entails an awareness of existing products (Blummer & Kritskaya, 2009, p. 201). New animation platforms include Moovly (2012) and PowToon (2012). Moreover, auxiliary technology tools used in online tutorials, such as quiz-makers, game-builders, polling surveys, and other interactive resources, continue to proliferate (including the 2012-launched Articulate Storyline, the 2013-launched Kahoot!, the 2014-launched Animaker, the 2015-launched Quizizz, and the 2016-launched Articulate 360). It is not within the scope of this article to examine all relevant technology advancements since 2009. Technology blogs may be utilized as a method of remaining current with the latest tech resources and pertinent developments.

One specific innovation to highlight has been the debut of split-screen tutorial platforms, including the University of Arizona’s Guide on the Side (GotS), an open source program made available to the public in 2012. The release of Guide on the Side quickly led to multiple reviews within library and information science journals (Sult et al., 2013; Mery, DeFrain, Kline, & Sult, 2014; Mikkelsen & McMunn-Tetangco, 2014; Stonebraker, 2015). In 2016, Springshare released LibWizard Tutorials, a proprietary and cloud-based split-screen tutorial alternative (Sherriff, 2017). Guide on the Side and LibWizard Tutorials use a similar dual-frame structure for their split-screen tutorials, but they differ in their features and other characteristics (pp. 126, 139). “The differences in their platform features manifest themselves in a variety of ways, with significant impacts on administration, authoring, and the learner experience” (p. 139). Other studies have compared the effectiveness of Guide on the Side tutorials with screencast tutorials (Mery et al, 2014; Mikkelsen & McMunn-Tetangco, 2014).

⁴ The highly influential Texas Information Literacy Tutorial (TILT) which was fully operational using the Shockwave Flash plugin, was removed from the online environment in 2009 (Befus & Byrne, 2011, p. 2; Anderson & Mitchell, 2012).

(2) Tutorial Maintenance and Revision

With the passage of time, one would imagine that tutorial revision would become a growing topic of discussion.⁵ Van Meegen and Limpens described annual tutorial revision in 2010. Obradovich, Canuel, and Duffy later called for “a plan for the periodic reviewing and updating” of instructional videos (2015, p. 756). With the advent of the 2105 *ACRL Framework for Information Literacy*, instructors have naturally moved beyond the *ACRL Information Literacy Competency Standards for Higher Education* from 2000 (for example, Harkins et al., 2011, p. 34; Held and Gil-Trejo, 2016, p. 5). This transition has required tutorial revision. Yet other factors, such as “changes in personnel, technology, and curriculum,” can prompt tutorial updating and revision as well (LeMire, 2016, p. 17). A simple but crucial example is the need to check and update links (Thornes, 2012, pp. 92-93). “Constant revision is needed, yet creation and revision of a web-based tutorial is likely to be costly and labor-intensive” (Su & Kuo, 2010, p. 327).

When a database interface changes, resources can become obsolete or unusable (Hess, 2013, p. 337). At other times, a tutorial simply becomes outdated in “look” or content. Amanda Nichols Hess argued for “a redesign and refocus process” (2013, p. 334). Bussmann and Plovnick discussed such a redesign focus as “the holistic process of completing the revision” (2013, p. 5). They concluded, “We found it useful to look at the revisions in terms of design, content, navigation, and technology, with the life-cycle framework grounding and informing many of our decisions” (p. 5; compare Befus & Byrne, 2011).

(3) Multimedia Learning by Gaming

Research has demonstrated the superior effectiveness of multimedia over text-only instructional tools (Scales et al., 2014, p. 243; Blummer & Kritskaya, 2009, p. 212). Researchers have examined the interface of information literacy instruction with “dual code theory” (Craig & Friehs, 2013, p. 295), “Mayer’s cognitive theory of multimedia learning,” (Scales et al., 2014, p. 244), and the corollary of Mayer’s “modality effect” (p. 245). Kathleen Walters and her colleagues described the application of interactive “hypermedia” (“a combination of text, image, sound, animation, and video”) to online tutorials (Walters et al., 2015, p. 10). Shiao-Feng Su and Jane Kuo examined information literacy tutorials within the Peer-Reviewed Instructional Materials Online Database (PRIMO), and found that nearly half “incorporated graphs, voices, screen recordings, and films, which not only enlivened the tutorials, but also provided a multitude of learning stimuli” (Su & Kuo, 2010, pp. 326-327).

⁵ The Blummer and Kritskaya literature review mentioned tutorial revision in passing (2009, pp. 201, 205). It also mentioned “continuous modifications and improvements” made to Bournemouth University’s InfoSkills tutorial (p. 210).

A particular multimedia topic that has gone mainstream since 2009 is gaming within information literacy instruction. Halpern and Tucker recognized the growing trend of gaming library instruction (2015, p. 117). According to Plumb, gaming provides an information pull in contrast with the information push of more traditional, text-heavy presentations (2010, p. 51). Information literacy games can be as simple as drag-and-drop citation exercises (Befus & Byrne, 2011, p. 8). Games can incorporate immediate feedback (van Meegen & Limpens, 2010, pp. 278, 280, 284). Moreover, van Meegen and Limpens have argued that the interactive elements of serious gaming can definitely improve learning results (p. 270).

(4) Cognitive Load Theory and Chunking

Librarians have considered the theoretical underpinnings and the contextual application of cognitive theory (Scales et al., 2014, p. 244).⁶ Scales, Nicol, and Johnson claim that “the understanding of the cognitive learning theories and how those theories manifest within library instruction tutorials will serve as an important part of the toolset with which librarians will make tutorials more effective for learning” (2104, p. 249). Researchers have investigated and applied such cognitive principles as Anderson’s ACT-R theory, Keller’s ARC theory of motivation, Sweller’s Worked Example Effect, and Fleming’s VARK Model (Walters et al., 2015, p. 10; Scales et al., 2014, pp. 245, 248-249).

In the last eight years, the application of cognitive load theory has led to an emphasis upon “chunking,” or “breaking up information into shorter segments focused on a specific idea or topic” (Hess, 2013, p. 335; compare Scales et al., 2014, p. 245). Such chunking can reduce cognitive overload, enabling users to process information more effectively (Hess 2013, pp. 336, 338; compare Thornes, 2012, p. 88). Some experts recommend that an online tutorial be no longer than three minutes (Plumb, 2010, p. 52; Craig & Friehs, 2013, p. 294). Aleman and Porter have even discussed the library use of looping 10-second GIF demonstrations, edited with callouts and title cards (2016, pp. 68-69).

Rothera (2015) has written an article on “Picking up the Cool Tools: Working with Strategic Students to Get Bite-Sized Information Literacy Tutorials Created, Promoted, Embedded, Remembered, and Used.” Her research demonstrated that students “valued brief, bite-sized, visually focused aids and tools” (p. 53). She concluded,

The project’s findings suggest that embedding frequent, bite-sized, multi-channel reminders to students about online tutorials and help resources, at regular intervals

⁶ Blummer and Kritskaya mentioned the constructivist theory in passing (2009, p. 211); cf. Walters et al., 2015, p. 17.

throughout their undergraduate experience, is essential if students are to use and benefit from such resources in developing their information literacy (p. 38).

Chunking fits well with an emphasis upon granularity, or breaking down content to facilitate easier access and consumption (Malingre, Serres, Sainsot, & Le Men, 2012, p. 50).

(5) Adult Education Theory

Another intersection of cognitive theory with online tutorial development has been the application of adult education research. With the passing of the millennials (those born between 1982 and 1991) through the traditional college-age range (compare Sachs et al., 2013; van Meegen & Limpens, 2010, p. 271), researchers have focused upon other student populations, including non-traditional “adult learners.”⁷ As noted by Hess, adult learners tend “to have a higher level of self-direction but lower levels of technology knowledge” than “traditional” college students (2013, p. 335). Adult learning theory emphasizes “the active involvement of the student in the learning process” (Weiner et al., 2012, p. 189).

In 2015, Halpern and Tucker authored “Leveraging Adult Learning Theory with Online Tutorials,” in an attempt to address a “gap in knowledge” (2015, p. 117). Building upon Knowles’ theory of andragogy, Halpern and Tucker state that “online tutorials that are informed by adult-centered strategies can be powerful tools for engaging with the adult online learner” (2015, p. 112). Halpern and Tucker listed the following “Four Principles of Andragogy”: (1) “Adult-centered tasks are highly relevant to a problem”; (2) “Adult-centered instruction is problem based”; (3) “Adult-centered instruction acknowledges the learners [sic] prior experiences”; and (4) “Adult-centered instruction is self-directed” (Halpern & Tucker, 2015, p. 116).

(6) Blended and Flipped Learning

Malingre, Serres, Sainsot, and Le Men have called for “good coordination between face-to-face and distance learning” (2012, p. 53). In this advice, they have followed the recommendation of Gravett and Gill, who state, “A blended approach to delivering information literacy training, via a program of face-to-face teaching combined with an online element, can prove a useful and effective way of reaching students” (2010, p. 70). Various studies have supported the efficacy of blended/hybrid approaches that supplement face-to-face instruction with supplemental online instruction (McClure et al., 2011, p. 31; Fontane, 2017, p. 91). Class-based learning and online tutorials can “work together to ensure different learning situations and different

⁷ Marie-Laure Malingre, Alexandre Serres, Alain Sainsot, and Hervé Le Men studied a specific student population, generally some years older than the millennial generation – PhD students in France. They recommended utilizing multimodality and diversifying the range of educational methods (2012, pp. 51, 55).

learning preferences are cared for,” so that they successfully supplement one another (Tooman & Sibthorpe, 2012, pp. 80-81).

More specifically, flipped learning has taken center stage (Matlin & Lantzy, 2017, p. 98; compare Obradovich, Canuel, & Duffy, 2015, p. 755; Halpern & Tucker, 2015, p. 114). Flipped learning favors active over passive learning by employing a variety of in-class learning activities, including peer discussions, experimentation, and lab work (Obradovich et al., 2015, p. 751). Teachers ask students to watch instructional videos outside of the classroom, in order to reserve classroom time for interactive learning. Flipping thus “optimizes the in-class interaction between students and the instructor” (p. 751).

Lemire explains, “As library budgets continue to tighten and technology continues to advance, libraries are flipping classrooms and deploying technology in order to better scale our instructional efforts” (2016, p. 17). Harkins, Rodrigues, and Orlov encouraged “the combination of in-class instruction with online delivery,” as well as the combination of printed and online handouts (2011, p. 43). They pointed out the benefit of online instruction in “building long-term connections with students” (p. 43). Gonzales concluded that “the ideal method of instruction” for many contexts would be “some combination of online and face-to-face instruction” (Gonzales, 2014, p. 48).

(7) The Importance of Ongoing Engagement

Harkins, Rodrigues, and Orlov exhorted readers to: “Foster the infusion of library instruction into the course content” (2011, p. 43). Some students acknowledge that “ongoing engagement” and practice would increase their comfortability with information resources (Harkins et al., 2011, p. 40). In one study, 60% of students thought they would refer to the online tutorial in the future (Tooman & Sibthorpe, 2012, p. 87). Rothera’s article on embedded online tutorials maintained that students want regular reminders (such as a “Tip of the Week”) via various channels (email, Facebook, Twitter) and marketing tools (promotional videos, bookmarks, posters) (2015, pp. 49, 52). She called for “more granular and frequent IL input, with refreshers at key points when they were working on assignments” (p. 49). Gonzales argued for “comprehensive and ongoing library instruction” that influences through a “cumulative effect” or “repeated exposure” (2014, p. 50).

Conclusion

Recent research has melded research skills with critical thinking skills (Thornes, 2012, p. 83; Halpern & Tucker, 2015, p. 117; Matlin & Lantzy, 2017, p. 104). Walters and her co-authors described a three-module tutorial, moving from “Evidence Based Research and Critical Thinking” to “Plagiarism and Citation” and on to “Academic Writing” (2015, p. 17). They attempted to incorporate “interactive components” in order to develop critical thinking and analysis skills (2015, p. 25). Held and Gil-Trejo listed “critical thinking” as one of five topics in a tutorial suite developed by California State University Stanislaus (2016, p. 1).

Critical thinking involves both analytic and synthetic reasoning (Blummer & Kritskaya, 2009, p. 203). Through the application of both analysis and synthesis within this literature review, I have collected and summarized a handful of current trends in recent online tutorial research. These seven aspects involve: (1) technology updates, (2) tutorial maintenance and revision, (3) multimedia learning by gaming, (4) cognitive load theory and chunking, (5) adult education theory, (6) blended and flipped learning, and (7) the importance of ongoing engagement.⁸ †

ABOUT THE AUTHOR

Paul Hartog is a Professor and the Director of Library Services at the John L. Patten Library of Faith Baptist Bible College and Theological Seminary in Ankeny, IA. He can be contacted at hartogp@faith.edu.

⁸ I wish to thank Ms. Lyndsay Smanz of the University of Wisconsin-Milwaukee for her encouragement in the composition of this essay.

REFERENCES

- Aleman, K. J., & Porter, T. D. (2016). 10-second demos: Boiling asynchronous online instruction down to the essentials with GIF graphics. *Journal of Library & Information Services in Distance Learning*, 10(3-4), 64-78. DOI: 10.1080/1533290X.2016.1193414
- Anderson, S. A., & Mitchell, E. R. (2012). Life after TILT: Building an interactive information literacy tutorial. *Journal of Library & Information Services in Distance Learning*, 6(3-4), 147-158. DOI: 10.1080/1533290X.2012.705106
- Befus, R., & Byrne, K. (2011). Redesigned with them in mind: Evaluating an online library information literacy tutorial. *Urban Librarian Journal*, 17(1), 1-26.
- Blummer, B. A., & Kritskaya, O. (2009). Best practices for creating an online tutorial: A literature review. *Journal of Web Librarianship*, 3, 199-216, DOI: 10.1080/19322900903050799
- Bussmann, J. D., & Plovnick, C. E. (2013). Review, revise, and (re)release: Updating an information literacy tutorial to embed a science information life cycle. *Issues in Science and Technology Leadership*, 74, 5. DOI: 10.5062/F4F769JQ
- Craig, C. L., & Friehs, C. G. (2013). Video and HTML: Testing online tutorial formats with biology students. *Journal of Web Librarianship*, 7, 292-304. DOI: 10.1080/19322909.2013.815112
- Dewald, N. H. (1999). Transporting good library instruction practices into the web environment: An analysis of online tutorials. *Journal of Academic Librarianship*, 25(1), 26-31.
- Fontane, W. M. (2017). Video tutorials revisited: The relationship between their use and library assessment quiz scores. *College & Undergraduate Libraries*, 24(1), 90-102. DOI: 10.1080/10691316.2015.1135093
- Gonzales, B. M. (2014). Online tutorials and effective information literacy instruction for distance learners. *Journal of Library & Information Services in Distance Learning*, 8(1-2), 45-55. DOI: 10.1080/1533290X.2014.898011
- Gravett, K., & Gill, C. (2010). Using online video to promote database searching skills: The creation of a virtual tutorial for health and social care students. *Journal of Information Literacy*, 4(1), 66-71.
- Halpern, R., & Tucker, C. (2015). Leveraging adult learning theory with online tutorials. *Reference Services Review*, 43(1), 112-124. DOI: 10.1108/RSR-10-2014-0042
- Harkins, M. J., Rodrigues, D. B., & Orlov, S. (2011). "Where to start?": Considerations for faculty and librarians in delivering information literacy instruction for graduate students. *Practical Academic Librarianship*, 1(1), 28-50.
- Held, T., & Gil-Trejo, L. (2016). Students weigh in: Usability test of online library tutorials. *Internet Reference Services Quarterly*, 21(1-2), 1-21.
- Hess, A. N. (2013). The MAGIC of web tutorials: How one library (re)focused its delivery of online learning objects on users. *Journal of Library & Information Services in Distance Learning*, 7(4), 331-348. DOI: 10.1080/1533290X.2013.839978
- LeMire, S. (2016). Scaling instruction to needs: Updating an online information literacy course. *Reference & User Services Quarterly*, 56(1), 17-22.
- Lofits, E., & Wormser, J. M. (2016). Developing online information literacy instruction for the undergraduate art student. *Art Documentation: Journal of the Art Libraries Societies of North America*, 35, 241-261.
- Malingre, M.-L., Serres, A., Sainsot, A., & Le Men, H. (2012). Form@doct: Designing innovative online tutorials for PhD students in France. *IFLA Journal*, 39(1), 45-57. DOI: 10.1177/0340035212472950
- Matlin, T., & Lantzy, T. (2017). Maintaining quality while expanding our outreach: Using online information literacy tutorials in the sciences and health sciences. *Evidence Based Library & Information Practice*, 12(3), 95-113.
- McClure, R., Cooke, R., & Carlin, A. (2011). The search for the skunk ape: Studying the impact of an online information literacy tutorial on student writing. *Journal of Information Literacy*, 5(2), 26-45.
- Mery, Y., DeFrain, E., Kline, E., & Sult, L. (2014). Evaluating the effectiveness of tools for online database instruction. *Communications in Information Literacy*, 8(1), 70-81.
- Mikkelsen, S., & McMunn-Tetangco, E. (2014). Guide on the Side: Testing the tool and the tutorials. *Internet Reference Services Quarterly*, 19(3-4), 271-282. DOI: 10.1080/10875301.2014.948252

- Obradovich, A., Canuel, R., & Duffy, E. P. (2015). A survey of online library tutorials: Guiding instructional video creation to use in flipped classrooms. *The Journal of Academic Librarianship*, 41, 751-757.
- Plumb, T. K. (2010). Creating electronic tutorials: On your mark, get set, go! *Journal of Electronic Resources Librarianship*, 22, 49-64. DOI: 10.1080/1941126X.2010.486729
- Rempel, H. G., & Slebodnik, M. (2015). *Creating online tutorials: A practical guide for librarians*. Practical guides for librarians 17. Lanham: Rowman & Littlefield.
- Rothera, H. (2015). Picking up the cool tools: Working with strategic students to get bite-sized information literacy tutorials created, promoted, embedded, remembered and used. *Journal of Information Literacy*, 9(2), 37-61. DOI: 10.11645/9.2.2033
- Sachs, D. E., Langan, K. A., Leatherman, C. C., & Walters, J. L. (2013). Assessing the effectiveness of online information literacy tutorials for millennial undergraduates. *College & Undergraduate Libraries*, 20, 327-351. DOI: 10.1080/10691316.2013.829365
- Scales, B. J., Nicol, E., & Johnson, C. M. (2014). Redesigning comprehensive library tutorials. *Reference & User Services Quarterly*, 53(3), 242-252.
- Sherriff, G. (2017). Guide on the Side and LibWizard Tutorials side-by-side: How do the two platforms for split-screen online tutorials compare? *Journal of Web Librarianship*, 11(2), 124-142. DOI: 10.1080/19322909.2017.1295821
- Stiwinter, K. (2013). Using an interactive online tutorial to expand library instruction. *Internet Reference Services Quarterly*, 18, 15-41. DOI: 10.1080/10875301.2013.777010
- Stonebraker, I. (2015). Specialized tutorials for specialized resources: Using interactive Guide on the Side tutorials for special libraries reference and instruction. *Public Services Quarterly*, 11(3), 232-236. DOI: 10.1080/15228959.2015.1060145
- Su, S., & Kuo, J. (2010). Design and development of web-based information literacy tutorials. *Journal of Academic Librarianship*, 36(4), 320-328.
- Sult, L. S., Mery, Y., Blakiston, R., & Kline, E. (2013). A new approach to online database instruction: Developing the Guide on the Side. *Reference Services Review*, 41(1), 125-133. DOI: 10.1108/00907321311300947
- Thornes, S. (2012). Creating an online tutorial to support information literacy and academic skills development. *Journal of Information Literacy*, 6(1), 81-95.
- Tooman, C., & Sibthorpe, J. (2012). A sustainable approach to teaching information literacy: Reaching the masses online. *Journal of Business & Finance Librarianship*, 17, 77-94. DOI: 10.1080/08963568.2012.629556
- van Meegen, A., & Limpens, I. (2010). How serious do we need to be improving information literacy skills through gaming and interactive elements. *Liber Quarterly: The Journal of European Research Libraries*, 20(2), 270-288.
- Visser, N. (2013). Did we captivate them? Perceptions of second-year students about the library's information literacy online tutorials. *Mousaion*, 31(2), 78-91.
- Walters, K., Bolich, C., Duffy, D., Quinn, C., Walsh, K., & Connolly, S. (2015). Developing online tutorials to improve information literacy skills for second-year nursing students of University College Dublin. *New Review of Academic Librarianship*, 21, 7-29. DOI: 10.1080/13614533.2014.891241
- Weiner, S. A., Pelaez, N., Chang, K., & Weiner, J. (2012). Biology and nursing students' perceptions of a web-based information literacy tutorial. *Communications in Information Literacy*, 5(2), 187-201.