

Watch and Learn: Assessment of Online Video Tutorials

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Abstract

In 2009, the University of Washington Libraries began producing online screencast tutorials as a way to support library instruction and to serve as point-of-need assistance in answering reference questions by email or chat reference. Research has shown that students are capable of learning from video tutorials, but while the usage of the tutorials has grown over time, producing them is resource-intensive. Are these videos worth our time and resources to produce and maintain? Do users actually watch and learn from them? This paper describes an assessment project of online tutorials by analyzing usage statistics, surveying and interviewing users, and piloting an in-class learning assessment.

Introduction

Screencasts and video tutorials have become a popular way for libraries to provide help information and orientations. The University of Washington Libraries began producing online screencast tutorials in 2009 in order to support library instruction and online reference services. The Libraries Online Learning Subcommittee conducted a review of the literature and at that time found the literature was more focused on the advantages of online information literacy tutorials and less on specific assessment methods. However, the existing literature demonstrated a variety of evaluation options¹ for us to consider as we designed our own multimodal assessment study. In 2012-2013, we analyzed usage statistics, investigated the usability of our tutorials, and piloted an in-class learning assessment.

Methodology

Statistics

The first phase of our assessment project began with analysis of tutorial statistics gathered from Google Analytics and LibGuides. Data included pageviews, unique pageviews, average time spent on a page, date a tutorial was added to YouTube, and number of locations a tutorial was embedded within LibGuides.

Marketing

The Libraries' Triennial Survey² and smaller-scale program assessments seem to point to a lack of awareness of tutorials. As a result, we set out to determine if tutorial promotion would result in an increase of tutorial usage statistics. We created separate communication plans for promoting tutorials with faculty and with librarians. A set of fifteen tutorials were selected for promotion with faculty, librarians, and students. Tutorials were shared with faculty through new faculty orientations, the Libraries Teaching Support website,³ the Libraries Teaching Support flyer distributed to all new faculty and TAs, and through the IT Connect technology e-newsletter distributed to faculty and staff of the University of Washington (UW). Librarians were shown examples of how tutorials can be successfully integrated into classroom teaching via the Libraries online newsletter and blog. Librarians were

instructed how to embed tutorials in subject and class guides, and also encouraged to embed a new “featured tutorials” box that would rotate the fifteen tutorials at targeted points in the academic year. Additionally, featured tutorials were placed on social media (Facebook and Twitter), the Libraries website, and subject liaison blogs during targeted points in the 2012-2013 academic year.

Results were mixed. Some tutorials received a significant uptick in usage including the “How do I find background information on my topic?” tutorial which increased by 124% compared to the prior year. The “Using an EBSCO database” tutorial received a 76% increase in usage. Most significant, the “What is a scholarly journal article?” tutorial received a near 200% increase in usage. Other increases were less significant such as a 1% increase in the “How do I use Interlibrary Loan and Document Delivery Services?” tutorial. A few tutorials trended downward in usage during the marketing campaign. These tutorials included “Chat with UW librarian,” “How do I find DVDs and videos?”, and “How do I access e-books?”

Embedding Tutorials

When exploring tutorial usage, we wanted to see if there was a correlation between the number of times a tutorial is viewed and the number of times it is embedded within our subject and class LibGuides. We assumed higher visibility within a subject or class would translate to an increased number of times a tutorial is viewed. We were surprised to learn that this was not the case.

Table 1. Comparison of the number of tutorial embeds in LibGuides and the number of pageviews

Tutorial	# of Embeds in LibGuides	# of Unique Pageviews
Find Dissertations	44	498
Find E-books	148	677
Search an EBSCO Database	18	2345
Find Full-Text Articles	345	836
Google: Boolean Operators & Phrase Searching	13	13202
Information Cycle	12	2335
Off-Campus Log In	136	690
Scholarly Journal Articles	62	1806

Also of interest are the tutorials that were selected for marketing. The “How do I log into resources from off-campus?” tutorial was linked in 58 guides during the 2011-2012 academic year, and received 1347 pageviews. Marketing tutorials to librarians increased the number of guides in which the tutorial was embedded to 136, but pageviews for the tutorial dropped to only 942 during 2012-2013. The same was true of the “How do I access e-books?” tutorial. In 2011-2012, the e-books tutorial was linked in 134 guides and received 1076 pageviews. After marketing, the e-books tutorial was included in 148 guides, yet the number of pageviews dropped to 811. Based on our statistics, we do not believe there is a strong correlation between the usage of a tutorial and the number of locations it is posted within a subject or class guide.

Surveys

In order to identify our tutorial audience, we embedded a Google form survey within each tutorial box in LibGuides. Respondents could indicate they were UW undergraduate students, UW graduate students,

UW faculty/staff, or other with the opportunity to identify themselves. The survey ran for over 7 months and we received 488 responses. We discovered that an overwhelming number of our tutorial users were University of Washington undergraduate students. Many of our tutorials offer a basic introduction to library tools and concepts so it would seem fitting that students would encounter them early in their academic career.

Usability

In Winter 2013, we began the usability portion of our tutorials assessment. We tested four tutorials representing a wide range of topics and formats:

1. practical video (“Using an EBSCO database”)
2. conceptual video (“What is a scholarly journal article?”)
3. video compared with static guide on the same topic (“How do I use UW WorldCat to find books, media and articles?”)
4. prototype of a conceptual interactive online module (“Research 101: Evaluating Resources”)

We had several questions that we hoped to answer through the testing:

- How effective are the tutorials in teaching a user something?
- How do users locate the tutorials and in what context?
- What format do users prefer to learn about something?
- What feedback do users have on design and interaction elements, as well as content?

We recruited novice undergraduate library users by posting a call for volunteers on the Libraries website, social media channels, various department email lists and flyers in the library. Volunteers completed a short survey that asked for contact information, student status, major/department, and experience using the Libraries’ discovery systems. Ten students were picked from a pool of 72 volunteers, based on their reported lack of library familiarity, scheduling, as well as representing a variety of disciplines. A facilitator conducted one-hour test sessions in the Libraries’ usability lab; the sessions were recorded with Morae Usability Testing software and observed remotely by members of the subcommittee. Students were offered a \$10 University Bookstore gift card at the end of each session.

For the usability tests, we asked the students to complete a task (e.g. “find a scholarly article”), look for help information on how to accomplish that task on our website, watch the targeted tutorial, critique it, and then complete the task again using information they may have learned from the tutorial. Students were assured at the start of the test session that we were more interested in understanding their thought process so that we could improve our help content. Students were asked to think aloud throughout the entire test session in order to explain their thinking. Notes were taken for each test session and clips of each session were shared with the entire subcommittee to discuss.

In-Class Assessment

In Spring 2013 we began the in-class learning portion of our assessment project. A total of three introductory writing/research courses were tested, each using a different tutorial. There were 10 sections, and a total of 192 students. First, we mapped our Libraries Learning Goals and Objectives⁴ to the learning outcomes of these tutorials and later developed rubrics to evaluate student learning. We

created pre- and post-test prompts that could be used by librarians and graduate assistant instructors in their information literacy lessons.

There were several problems with the in-class learning assessment and therefore we are unable to draw any conclusions at this point. The test instrument itself had issues: the pre-test questions did not map well to post-test questions; some of the evaluations were incomplete; and many of the answers did not reflect information from the module. We would likely do this portion of the assessment over again after adjusting the test prompts and rubrics, and testing them before deploying with actual classes.

Findings

After compiling the results of our various assessments, we were able to identify several points of thematic overlap between the usage patterns for Libraries tutorials and the articulated preferences of undergraduate participants in our usability study. Further, we were able to gain a greater understanding of the qualities that help make a video tutorial appealing to UW's core base of patrons. These thematic findings were reviewed by the Online Learning subcommittee, and then subsequently summarized in a set of written best practices, which included the following sections:

Identify your users.

According to both our embedded survey of tutorial users and the UW Libraries Triennial Survey of undergraduate, graduate, and faculty patrons, the primary users of the video tutorials are undergraduate students. By acknowledging the demographics of our tutorials users, we can better plan our tutorial topics, resources, and choice of vocabulary.

Focus on a very specific problem or need.

According to our usability study, students are more inclined to watch videos with titles that address specific research problems over those that give broad overviews of research topics or tools. Thus, while a tutorial may include some "big picture" information, it's important to prioritize points of confusion and immediate need, especially in your title. This preference was also reflected across our usage statistics, which showed that tutorials that specifically targeted common questions or needs (e.g. "How do I access full-text articles with the proxy bookmarklet?") were often watched more often or for longer durations.

Evaluate your format choice.

Video can be a good vehicle for some content, but it can be a deterrent to those who want to find an answer quickly. According to our usability study, students often prefer to receive help with frequently asked questions in written formats like webpages, rather than in videos, as these are faster and easier to browse.

Keep it really, really short.

Because students click tutorials in the hopes of discovering practical answers, they dislike encountering videos over two minutes in length. Both our usability testing and usage analysis suggested that longer tutorials are only watched when deployed as part of in-class lessons or assignments. To keep student attention, we recommend that librarians keep tutorials within the 30-90 second range.

Skip the introduction.

UW students reported in the usability study that librarians spent too much time at the beginning of

tutorials introducing or “orienting” users. Instead of wasting precious seconds, we recommend that librarians start tutorials with the important information students want and need.

Match written words with spoken words.

If you display text as part of your recorded tutorial, match the audio to correspond to this text. According to our usability study, it is difficult for users to listen to something and read non-corresponding text at the same time.

Embrace quality production values.

While a good tutorial does not have to be flashy, students do notice when librarians overlook basic production values such as image clarity, music, pacing, and audio quality.

Assign a practical title.

In usability testing, UW students desired clear and practical tutorial titles. This preference once again correlated with the results of our usage analysis, and could help explain why marketing efforts did not make a bigger difference. We recommend that librarians ask themselves “What problem does this tutorial address?” and always be as descriptive and to the point with tutorial titles.

Make interactive components obvious to users.

While interactive components can make course-embedded tutorials more engaging, usability study participants reported that such elements must be clearly highlighted so that users know when and how to engage with them. That said, because of the length restriction, we do not recommend that most point-of-need tutorials have interactive components.

Conclusion

Surprisingly, our key findings were less about what users learn from tutorials, and more about what motivates them to watch tutorials in the first place. Overall, our assessment project revealed that motivation for watching a tutorial is dependent on a number of factors, including title, length, and production quality. The point-of-need tutorial can still be relevant if it is practical, problem-oriented and follows the best practices identified above.

The most significant implication from our study is that tutorials offer two distinct types of content and their success depends on the context of their use. The more practical videos are problem-oriented and can be helpful when one encounters a problem. Other videos are more conceptual, and teach ideas similar to the threshold concepts in the ACRL Framework for Information Literacy for Higher Education.⁵ For example, many UW librarians show the “What is a Scholarly Journal Article?” video during information literacy instruction sessions in order to frame scholarship as a conversation. Still, during the usability study interviews, multiple students said if they needed to find the definition of a scholarly article, they would prefer to read a text explanation rather than watch a video. No matter how central these concepts are to information literacy, most students will not seek to learn about them by watching a video on their own. We argue that conceptual videos still have a purpose, but only in course-embedded instruction.

Our assessment project findings will guide the revision of our “How do I?” tutorial portal. Instead of a repository for all help videos, we are now focused on creating a student-centered FAQ resource that provides answers to questions that students really do ask. This new portal will also include other

formats besides video, most likely text with images. We no longer expect students to find and watch conceptual videos on their own, so these will live on a separate page, and librarians can use them for course-embedded instruction. By translating our findings into best practices, and ultimately revising our tutorial portal, we hope that librarians will create and assess online help tutorials in a more strategic manner.

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Notes

¹ Blummer, Barbara A. and Olga Kritskaya. "Best practices for creating an online tutorial: A literature review." *Journal of Web Librarianship*, 3 (2009), 199-216.

² University of Washington Libraries, *2013 UW Seattle Undergrad Student Library Use Survey*, <http://hdl.handle.net/1773/24050>.

³ University of Washington Libraries, *Examples of Faculty & Librarian Collaboration*, <http://www.lib.washington.edu/teaching/examples>.

⁴ University of Washington Libraries, *University Libraries Student Learning Goals & Outcomes*, <http://lib.washington.edu/teaching/learning-goals>.

⁵ Association of College & Research Libraries, *Revised Draft Framework for Information Literacy for Higher Education*, <http://acrl.ala.org/ilstandards/wp-content/uploads/2014/02/Framework-for-IL-for-HE-Draft-2.pdf>.