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Introduction

Librarians spend a great deal of time working with students. This could occur on the reference desk, during an in-person consultation, or in the classroom. However, with the shift towards e-learning and a growing number of students completing research and assignments off-campus, librarians are constantly looking for new ways to reach a wider diversity of users.

Librarians at Western Libraries have used various methods for reaching out to students to enhance learning. One of the newer methods involves creating online video tutorials. These short videos are created, mounted onto YouTube, and then added to the library website. Western Libraries, and the following several groups have been involved in the creation of video tutorials: the Western Libraries wide Web Tutorials Working Group, the Allyn & Betty Taylor Library's Web Modules Group, and the D.B. Weldon Library's Instruction Portfolio. These groups worked separately and therefore the experience in creating videos, and the look and feel of the videos themselves, differed somewhat from group to group. This has led to a greater understanding of best practices and has given Western Libraries a certain level of expertise.

This paper will provide background information on the video tutorials work at Western Libraries, and will describe the various purposes for which they were created. It will also describe the various approaches used, best practices and assessment. Finally, this paper will address challenges and discuss future directions.

Purpose

Librarians at Western Libraries have been interested in the value of online tutorials for several years. Since 2009, twenty-eight tutorials have been created and mounted on the Western Libraries website. Topics have ranged from basic search strategies to more advanced topics.

The growing trend in e-learning and an increased focus on distance users has demonstrated the value of web-based learning tools. This shift can be seen in Western University's strategic plan where:

"Western will expand its educational reach in the region and around the world by...designing and implementing a strategy for distance education and on-line learning that will increase the participation rate in these areas at Western."¹

¹ The University of Western Ontario. Engaging the Future: Update on the Strategic Plan. September, 2010, http://www.uwo.ca/univsec/strategic_plan/documents/Engaging-the-Future-update-Sept-8-10.pdf.

By creating these web tutorials and mounting them on the Library website, we are addressing the aspect of online learning that speaks to how today's students prefer to engage with their learning. These web tutorials can be accessed 24/7, can be paused and replayed, and can be viewed directly at the point of need.

Western Libraries has found evidence that online tutorials are favoured by our students. An internal assessment performed in Taylor Library in 2006 revealed that 64% of students would prefer online tutorials rather than in-person instruction. This may be related to the fact that audio-video tutorials increase user engagement.

Traditionally, more time and energy has been spent focusing on the research needs of graduate students. However, Western is seeking to expand its focus to undergraduate students "through courses and programs that expose them to the excitement and challenge of university level research."² Our tutorials have therefore targeted both the graduate and undergraduate level student.

The accessibility of online tutorials assists instruction librarians who often have heavy workloads and teach the same material multiple times. Online tutorials can also help augment in-person instruction and can save time during a tightly scheduled session. In addition, they are beneficial as they can be easily shared in an email or during a chat reference session, again, saving the librarian from having to teach the same material over and over.

Approaches

Our methods varied from group to group, and from video to video. In general, topics relating to Information Literacy were identified and appropriate topics were chosen by the group. Two or three people created each video, including scripting, images or video, audio and production. Some of the videos were created in partnership with the University of Western Ontario's Information Technology Resource Centre (ITRC), who brought high video production value to the table.

Each video used one of two approaches: tool-based or concept-based. Some videos explained how to conduct specific tasks using specific tools. For example, exporting citations from the database PubMed into the citation management software RefWorks, or performing a basic search in the database CINAHL. Such videos feature screenshots, or video of screen activity, and can help students who prefer to learn by watching demonstrations of tasks. One problem with such 'tool-specific' videos is that they can be rendered useless when web-based tools change in appearance, or are replaced by other tools. Monitoring and updating such videos can become a workload issue. When 'tool-specific' videos must be created, we suggest a 'quick and dirty' approach, with minimal time and effort spent on polishing them to perfection.

On the other hand, images or video footage of particular tools are sometimes unnecessarily included in videos that are initially conceived to teach concepts rather than specific tools. For example, knowing how to effectively combine keywords using a database's 'advanced search' screen is a skill that is independent of any particular tool, since most of these screens have many elements in common. Such concepts can and should be taught in such a

² The University of Western Ontario. Engaging the Future: Final Report of the Task Force on Strategic Planning. November, 2006, http://www.uwo.ca/univsec/strategic_plan/report/01.htm

way that learners are not lead to feel reliant upon a particular tool or interface. The intent of such an approach is to instill confidence and a spirit of curiosity in learners, and to encourage independent learning. In order to teach concepts without the tools, an 'advanced search' screen can be stripped down to its bare essence, leaving out all of the 'noise' of the interface (e.g., banners, borders, product and contact information, links to help, social media sharing features, etc.). What one is left with is an abstraction of 'advanced search' screens, a representation of all such screens. Such an abstraction can be effectively conveyed using hand drawn images, which discourage the impression that a real tool is being represented. Hand drawn images also convey the sentiment that "None of this is complicated," making the videos less threatening and more accessible.

Viewer engagement is important for videos to be effective. Humour can be used to get viewers to 'lower their guards', thus rendering them more relaxed and hence more engaged. The use of humour also allows for greater creative freedom. We opted to remain serious in our scripts, and those videos using humour did so via puns, metaphors and humorous drawings.

Technical Aspects

The creation of online videos also involves some technical components including audio, imaging and production. Audio recording software included Camtasia and GarageBand (Mac only), and hardware included a LogiTech headset with built-in microphone and Apogee's MiC (Mac only). Audio quality is one aspect of videos that can and should be controlled. Hissing, echo, and other tell-tale signs of poor audio recording equipment or facilities should be avoided. Narrators should be chosen not for their knowledge of the subject matter, but for the quality of their voice. The use of background music (if it is used at all) should be kept to a minimum. Music should never be playing while the narrator is speaking; to do otherwise can prove extremely distracting for some viewers.

Video production software included Camtasia, ScreenFlow and Adobe After Effects. 'Callouts' were sometimes added to videos in YouTube in order to highlight certain aspects of computer screen images. Closed Captioning (CC) was included for accessibility. CC files were created using YouTube, with spelling and timing corrected using Notepad. The video's final title, description, tags, copyright and license information were determined prior to uploading the video to the University's YouTube channel.

Videos are included in the Library's "Tutorials" YouTube playlist, are featured on the Library's homepage, and are each embedded on their own 'host' web page on the Library's website.

Feedback and Assessment

A number of approaches were used to obtain staff or student feedback on the videos. In two instances, videos were screened to library staff before they were made public. In the Fall of 2011, several Taylor librarians utilized videos in library instruction sessions and obtained student feedback on the tutorials. One or more of the following three videos were shown in these sessions:

- Literature Review
- Basic Search: Using Boolean Operators
- Basic Search: Boolean Operators (Advanced)

Students were asked to provide feedback using an online questionnaire (see *Appendix A*). 130 students responded to the survey. Table 1 provides the number of responses associated with each tutorial. 86.9% of the participants were undergraduate students, 12.3% were graduate students, and 0.8% were faculty members.

Table 1. Number of responses per tutorial

Video title	Response Count	% Response
Basic Search: Using Boolean Operators	26	20%
Basic Search: Boolean Operators (Advanced)	4	3.1%
Literature Review	98	75.4%
Other	2	1.5%
total	130	100%

Respondents were asked to evaluate the video tutorials, including visuals (i.e. images and video), speed of narration, and content. Below is a summary of our findings:

- 99.2% of respondents indicated that the visuals in the tutorial were easy to follow.
- 89.2% of respondents agreed that the narration speed was just about right. Only 8.5% of respondents indicated that the narration speed was too fast.
- 73.1% of respondents indicated that the content covered in the tutorials met their information needs, 21% were undecided, and 4.6% did not find the content useful.
- 83% of participants indicated that they would watch other Taylor Library video tutorials in order to help them with library related resources and databases.

Five open-ended questions sought respondents' opinions on how the three tutorials could be improved. The following common themes were identified and coded: clarity (or simplicity), content, visual appeal, quality of audio and narration, background music, and pace. Based on this coding, both positive aspects and areas for improvement were identified. Table 2 summarizes the distribution of these coded themes for the videos "Basic Search: Using Boolean Operators" and "Basic Search: Using Boolean Operators (Advanced)". The video "Literature Review" received the greatest number of evaluations, and so feedback related to that video is reported separately in Table 3. Overall, student feedback was positive, indicating that students found the videos useful and informative.

Table 2. Common themes from responses to open-ended questions

Theme	Frequency
Clarity (or Simplicity)	38
Content/Informative	38
Visual	29
Audio/Narration	6
Background Music	3

Table 3. Common themes from responses to open-ended questions for “Literature Review” video tutorial

Theme	Frequency
Background music – too distracting	11
Visual (Animation too distracting)	5
Content (More examples, more focus, or more content)	11
Prefect	4
Content (This topic is not applicable)	3
Pace (too fast)	4
Visual (Animation – add more)	2

Usage statistics

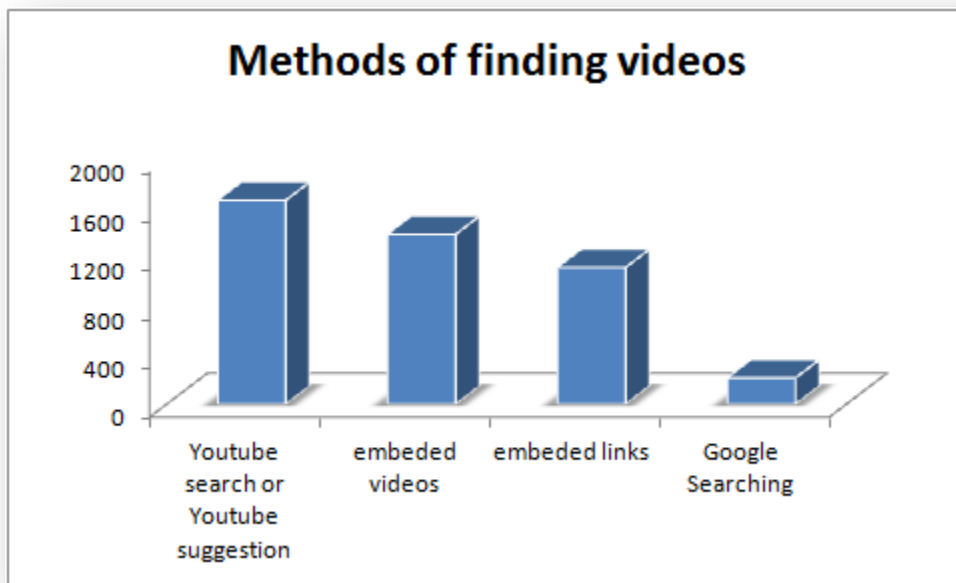
YouTube Analytics were invaluable in providing information about the popularity of videos. Using YouTube Analytics, it was possible to determine the number of views each video received and to identify traffic sources. Table 4 summarizes the number of views for each Taylor Library video. It should be noted that these videos were posted to YouTube on different dates. Graph 1 shows the various YouTube features and external sites through which the viewers found the videos. Viewer often searched for videos on YouTube, clicked on suggested YouTube video thumbnails, followed embedded links in other websites, or simply searched Google for videos. We found that the most common ways in which viewers found our videos were by searching YouTube or via suggested YouTube video thumbnails. Analytical reports are available through one’s YouTube account³.

Table 4. Taylor Library videos: number of views

Tutorial title	Date posted	View Count as of Jan 30,2012
Accessing Journal Articles Using the Get it @ Western Button	6-Sep-11	66
Basic Search: Using Boolean Operators	3-Oct-11	142
Basic Search: Boolean Operators (Advanced)	6-Sep-11	90
CINAHL: Searching for a Known Citation	11-May-11	113
CINAHL: Searching for Authors	2-May-11	99
Finding an Impact Factor	2-May-11	444
RefWorks: Importing Citations from PubMed	15-Sep-11	333
Literature Review	4-Oct-11	234
Picking the Right Database	4-Oct-11	88
Subject Headings	6-Sep-11	128
Total		1737

³ YouTube Analytics basics. available at <https://support.google.com/youtube/answer/1714323?hl=en>

Graph 1. Methods of finding videos



YouTube appears to be a successful means of disseminating, promoting, and providing access to, these videos. YouTube Analytics is a useful tool for information or data gathering for the purpose of assessment.

Conclusion

Library video tutorials support Western's e-learning initiatives, including distance education and on-line learning. They support various learning styles and are available at the point of need. They can also help augment in-person instruction, and can save time during a tightly scheduled instruction session. While creating video tutorials can be very challenging and time-consuming, the results can be worthwhile. Videos can assist librarians as instructors who often have heavy workloads, and typically teach the same material multiple times.

Creating concept-specific rather than tool-specific videos may promote life-long learning, confidence in Information Literacy skills, and a spirit of curiosity in learners. Such videos are more sustainable and useful to learners from a variety of disciplines.

The feedback received from students, and the number of views per video, are indications of the usefulness of these online video tutorials for providing Information Literacy instruction. Working closely with a cohort of students, in order to compare their learning with or without video tutorials, can provide an indication of how successful specific online videos tutorials are in higher education.

References

The University of Western Ontario. Engaging the Future: Final Report of the Task Force on Strategic Planning. November, 2006, http://www.uwo.ca/univsec/strategic_plan/report/01.htm.

The University of Western Ontario. Engaging the Future: Update on the Strategic Plan. September, 2010, http://www.uwo.ca/univsec/strategic_plan/documents/Engaging-the-Future-update-Sept-8-10.pdf.

YouTube Analytics basics. available at <https://support.google.com/youtube/answer/1714323?hl=en>

Library Video Tutorials Survey

Thank you for watching the video tutorial designed by Taylor Library. Your feedback is highly appreciated and will help us to improve future tutorials. The survey should take about 5 minutes to complete. Your participation is voluntary and you can leave the survey at any time.

1. Which tutorial did you watch?

2. How did you get to this tutorial?

- A) librarian or professor showed it to me
- B) I found it on my own (e.g. library website, Google, YouTube)
- C) Other

Please Indicate your level of agreement with the following statement

3. The visuals in the tutorial were easy to follow Yes No

4. The speed of the narration was: Too slow About right Too fast

5. The length of the tutorial was: Too long About right Too short

6. What did you like the most about the tutorial?

7. What could we do to improve the tutorial?

8. Would you watch other Taylor Library video tutorials in order to help you with library related resources and databases?

Yes

No

Undecided

9. Did the content covered in this tutorial meet your information needs?

Yes
No
Undecided

10. Do you have any suggestions for tutorial topics that you would like to see online?

11. What is your affiliation with Western?

- A) Faculty
- B) Graduate Student
- C) Undergraduate Student
- D) Research Assistant

12. What faculty are you affiliated with?

Arts & Humanities
Don Wright Faculty of Music
Education
Engineering
Health Sciences
Information & Media Studies
Law
Richard Ivey School of Business
Schulich School of Medicine & Dentistry
Science
Social Science
Other (please specify)