Article

Using online video to promote database searching skills: the creation of a virtual tutorial for Health and Social Care students

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Abstract

In recent years, online tutorials have become well-established tools for the delivery of information literacy training as information professionals continue to seek new and more effective ways to reach audiences. However, the rapid transience of technologies, and the ongoing need to maximise the efficiency of services, mean that the question of how best to exploit the online medium needs further exploration. This paper focuses on a project at the University of Surrey Library to develop a new approach to online instruction. The goals of the project were to explore how the addition of video might create a more engaging user experience, and how the online video tutorial might therefore both improve existing information literacy training as well as offering a 'just-in-time' point of support. This paper examines the practical challenges involved in creating useful and accessible content and compares different software solutions for producing and editing video, audio, screencasts and subtitles. Further, it also examines the specific issues encountered when using external content, including database modifications and e-copyright issues. Finally, it touches upon the feedback collected so far in order to begin the evaluation of the resource. Using video can maximise the impact of e-learning tools, helping online tutorials to deliver information in a more personal and immediate way. However, when allowing for the time investment in creating and managing such resources, both their role alongside alternative information literacy approaches and their lasting value must be carefully considered.

Keywords

Online tutorial; Information Literacy; Academic librarianship; Health and Social Care students;

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1. Introduction

In a climate of growing pressures on resources, many information professionals are re-examining the tools through which they support users, searching for more effective and far-reaching methods of training. At the same time, multimedia technologies are developing rapidly and this means that staff are now able to help users in new ways and by using innovative tools. This article presents the online video tutorial produced by the library at the University of Surrey as an innovative way of supporting students in their development of information literacy skills, particularly in the area of online database searching which is the tutorial's central focus. Although online instruction in a range of formats has now become increasingly common, this paper discusses the creation of online instruction in video format and its aim to create a more visual and engaging user experience. Embedded within a module, and operating as a supplement to face-to-face sessions through a blended learning approach, the tutorial offers students within the Division of Health and Social Care an alternative and remotely accessible option for support. The tutorial has so far been well received by staff and students, but the project was not without its challenges. When evaluating

the project's time and resources, and the tutorial's success so far, this paper considers how valuable such tools may be for information professionals, both in the short and longer term.

In the Library and Learning Support Service at the University of Surrey, a team of Academic Liaison Librarians helps students to develop and to enhance their information literacy skills. The Liaison Librarians offer a range of training options within their particular subject areas, including: face-to-face teaching sessions; one-to-one appointments; drop in sessions; helpsheets; and online tutorials. In the past, online tutorials had been created either as text-based web pages, or by using screen capture software programs such as Macromedia Captivate (now Adobe Captivate). However, with visual and auditory content becoming more commonplace on the web, and via websites like YouTube, the existing tutorials seemed a little static. As a result it was agreed that a more engaging tutorial should be created, one that would include video or multimedia. Furthermore, the recruitment of a new fixed-term Virtual Support and eServices Developer meant that it was now feasible to investigate a new direction in the development of online support.

Parallel to this opportunity, there was a challenge in the demand for help from the students within the Division of Health and Social Care. In the field of Health and Social Care at the University of Surrey, many students come to Higher Education with low confidence in the areas of information and IT literacy. They lack the time with which to acquire the necessary skills, and are often living at a distance from campus. As a result, the demand for guidance from the library and its staff is particularly high. The complexity of online databases and sometimes limited coverage of full text collections means that online database searching, with its challenges of remote access and locating electronic resources, is an area of particular difficulty. Departments expect their students to be information literate, with the evaluative skills to interpret the difference in quality between sources and the ability to locate a wide number of good-quality articles and generate consistent referencing. As a result, a large number of students seek extra help from the library, and expect assistance 'on-demand'.

Of course, these are not new issues for library staff. However, an increase in new modules and courses, as well as in student numbers, led to greater demand of support by library staff at a time (2008-9) when extra workload issues for all meant that services need to be streamlined or delivered more effectively. As a result, delivering the same amount of face-to-face sessions was no longer feasible, particularly as it became apparent that this form of support did not always work as efficiently as expected. For example, one Foundation module for pre-registration students incorporated three library sessions in semester one: one induction and two literature searching and electronic resources sessions. This approach did not address the inevitable information overload that students experienced at the start of semester, raising questions about the feasibility of this type of provision. It was decided that a staggered approach that offered flexible access to information may reduce demand on library staff during a peak time of the academic year, and might also prove more effective, offering a 'just in time' version of the original face-to-face 'just in case' model.

2. The tutorial project: online help in a new format

The decision was taken to create a tutorial to introduce a few of the key online databases/journal collections, namely the British Nursing Index, Internurse and Your Journals at OVID, and to provide an introductory guide to literature searching. The tutorial would consist of a short video of a training session, together with screen demonstrations of the databases, and would take approximately fifteen minutes to watch. Database helpsheets that were already available in PDF would also be added, as well as a link to the databases themselves, to encourage viewers to carry out a search using the search techniques they had just viewed, directly after or alongside the tutorial. As a result, the aim was to create a multimedia tutorial combining a mix of audio, text and visual

elements. We planned to run the tutorial alongside a reduced number of face-to-face sessions. This would help to relieve some of the pressure on library staff time to deliver information literacy training, while offering students a remotely accessible means of accessing support. It would also mean that support could be accessed repeatedly, and at any time, therefore helping those students who could not attend a face-to-face literature searching session, or those students who had attended the training but just wanted a 'refresher' session. The tutorial would be embedded as part of a Foundation module of the BSc and Diploma programme for pre-registration nursing students. However, although focused within this particular module, the content of the tutorial would also have wider appeal to other students across the Division of Health and Social Care and could be accessed at any time.

When planning the tutorial, it was discovered that creating online tutorials using video in this way is very much a nascent area of practice for information professionals. For example, some professionals have been experimenting with these technologies. One interesting study is Meehan and Hyland's 'Video killed the PDF star' (Meehan, 2009) which discusses the experience of staff at Dublin City University when creating video-based tutorials. In the same issue of *SCONUL Focus*, Antony Brewerton highlights this area as a 'recent (and growing) trend for libraries' (Brewerton, 2009, p.3). However, on the whole there have been few detailed studies published on this kind of instruction. As Oud notes, more practice-based examples can only serve to help fellow professionals:

> Screencasts and multimedia tutorials are a relatively new way of offering instruction in libraries, and we are still beginning to see how they can be used effectively... it would be useful for librarians to have more examples in practice and more research in many areas. (Oud, 2009, p.174)

Similarly, Wales and Robertson comment on the lack of published materials on electronic information literacy resources:

> When searching the literature it was difficult to find any discussion of the problems and challenges faced when creating online information literacy material, which is disappointing as it is often the circumvention of such difficulties that provides the greatest insight for fellow practitioners. (Wales and Robertson, 2008, p.370)

In response to these views, after creating the online video tutorial for students at the University of Surrey, it was thought that sharing the process, and particularly the challenges of the project, would be useful for other professionals who may also be keen to explore this growing area of information literacy.

2.1 Technologies used

A number of technologies were used to create the tutorial. The first stage was to record the video content consisting of a short demonstration of an introduction to the databases that would be covered by a routine training session. The video recording was done in a quiet study room within the library, using a Sanyo Xacti CA6 digital video camera. While this camera had sound input, the volume was not very high, so a Samson C01U-USB microphone was used to capture the audio. Two takes were recorded, and it was then possible to combine both the two video sessions and the audio track into one file. This was particularly useful as the room wasn't completely soundproof, and there were occasional noises from outside. Once the video and audio content had been recorded, the next step was to record the screencasts. Originally it was thought it would be possible to do this using the Macromedia Captivate software, which had been used to record screencasts for other tutorials. However, it was not easy to combine the video and the screencasts using Captivate software. To solve this issue, Camtasia Studio was used as this software enabled editing of the video and recording of the screencasts and audio tracks in one package.

Once the content was complete, the next stage was to ensure that the tutorial was accessible. It was decided that captioning should be added so that the tutorial could be watched without sound. This would help both students with hearing impairments, as well as students who would be viewing the tutorial on University computers in silent areas. Initially, Adobe Flash CS4 was used to set up a video player, and a timed text XML file was created with the subtitles. This meant having to learn how to create such files, including how to add formatting to the displayed text, which was time-consuming and detailed work. Once it was decided to use Camtasia, however, it was much easier to add the subtitles, as Camtasia has a built-in tool for this. The tutorial was also viewed by our Additional Learning Support staff, who commented on its levels of accessibility and were happy with the end product. This was important to us as the Additional Learning Support team is responsible for providing support to dyslexic and disabled students and this therefore provided an additional quality assurance process because it meant that the tutorial was suitable for these groups of students.

Once the video was completed, a set of web pages was created to display it. Camtasia can output files in a number of different formats, so an HTML page, SWF (Small Web Format or Shockwave Flash) files, and an XML file for the captions were created. The generated HTML page was then edited using CSS to match the rest of the web pages. A short quiz was then created using Flash to provide the tutorial with an interactive element, and the questions and answers were contained in an XML file, to allow for easy updating in the future if required. The quiz, as a SWF file, was then embedded into one of the web pages. Finally, a link to the databases page was added as well as links to the PDF helpsheets, which were already available.

2.2. Challenges and technical issues

One key difficulty of the project was the impermanence of the online databases. Part way through the project, after recording the video and audio parts of the tutorial, certain changes were made to one of the databases, which meant that the audio no longer matched what happened on the screencast. It was therefore necessary to record again several sections of audio and then replace the original audio with the new sections. This was done using Audacity software and the audio tracks were later edited in using Camtasia. This added a significant amount of time onto the project. It was also a problem that would most likely recur as database providers inevitably change and upgrade database interfaces on a regular basis. Another consideration was the e-copyright implications of the tutorial, particularly the issues involved with displaying sections of the databases, and examples of full text articles. Firstly, it was necessary to check carefully through the terms and conditions of the licences from each database provider. On occasion, however, permissions weren't clear. In these instances it was necessary to contact the providers in order to obtain permission prior to recording. Although any required permissions were obtained, this added an extra task and the associated time delay to the project.

A further challenge was in ensuring that the tutorial could be displayed fully on and off-campus. Not only did this involve detailed testing, but as both the video and the quiz require Flash Player 10 to view them, the latest version of this software had to be installed on all of the computers in the Library, and in the department (at the time, version 9 was installed on the computers). This was an added consideration at the end of the project when time was short, and it was necessary to liaise with the IT Services department in order to ensure that the software had been successfully installed before the start of semester. Overall, this was a challenging new development for library staff and finding the most effective way of doing things took time, as it was often a matter of trial and error. Learning to use the hardware (the microphone and video camera) was not too onerous, as both were quite straightforward. By contrast, finding the best software for the task was a complex process that involved trying out different options, using Captivate initially to find a way to merge the screencasts and video. Next, the free software CamStudio was also experimented with, before it was finally decided to use Camtasia Studio.

3. Analysis and feedback

The tutorial project was significantly more time-consuming than expected. Creating the captioning, and editing the final work were lengthy processes, and without the extra staffing resource from the Virtual Support Developer it would not have been possible to dedicate the hours required to complete the product. Of course the costs of staff time, with staff working intermittently on the project for approximately six months were notable. However, other than the cost of Camtasia Studio (approximately £200), there were no significant extra resources costs as the equipment and software used was already available. Unexpected challenges also complicated the project. For example, simply ensuring that all on campus computers had the latest edition of Flash Player meant time spent liaising with IT contacts that had not been anticipated, and the change of the interfaces in the databases covered by the tutorial complicated the process further. This is also an ongoing problem, owing to the transient nature of electronic resource content. Future-proofing the tutorial is therefore a long-term underlying concern. As a result, it is worth considering carefully what resources are available when embarking on similar projects. Wales and Robertson also advise to consider carefully the staffing and organizational implications: 'Will the expertise end up in only a few staff? ... Is there the commitment and resource available to keep them up-to-date?' (Wales and Robertson, 2008, p.13). The Virtual Support Developer is a fixed-term post, and whether this and other tutorials will be able to be maintained at such a high standard remains an issue for our organisation.

Nonetheless, the product certainly achieved its objectives in providing students with an 'on-demand' and remotely accessible means of obtaining support in developing their literature searching skills. Usage and feedback has so far been positive. The tutorial is promoted in the face-to-face sessions; via the library literature; at helpdesks; and on the library website. Web page statistics show the tutorial is being well used with 320 visits to the tutorials page recorded between January to March 2010, and a current record of approximately 5 visits to the tutorial each day. Informal feedback from students has included comments such as 'Well, there's really no excuse now then is there!' and the tutorial has been well-received when introduced during library sessions and at helpdesks. The tutorial has also generated positive feedback from academic staff. For example, the Pre-registration Common Foundation Programme Leader thought that: "This [tutorial] is brilliant, especially the video! I'm sure that students will find this really helpful...I'm sure that many of our existing students will find this really helpful too".

Gathering comprehensive feedback has so far been a challenge. In order to ascertain qualitative feedback from students at the point of use, an anonymous comments form was added to the webpage. To date this has not generated many comments, perhaps owing to students' time constraints or reluctance to openly critique staff and/or resources. It will be interesting to continue to gather feedback and to monitor the tutorial's usage over the coming year, which we hope to do in combination with the running of focus groups to elicit the students' views directly and with an added evaluation of wider usage statistics. A redesign to our library website will also enable us to make the tutorials page even more prominent and hopefully increase usage further.

4. Conclusions and recommendations

The need to work more effectively and efficiently has always been a goal for institutions, but in the current economic climate, this aim is becoming increasingly more important. A blended approach to delivering information literacy training, via a programme of face-to-face teaching combined with an online element, can prove a useful and effective way of reaching students, and of providing a 'just-in-time' form of support. Ideally, this online element should provide an engaging, varied learning environment with a mixture of audio, visual or multimedia content. Of course, no tutorial can replace the human contact, with or without multimedia. As a result the tutorial is best used when complementing face-to-face provision. Creating such content is itself a challenge, and when considering the changes in technologies and in the databases themselves, managing and future-proofing content is also challenging. As a result, each institution must assess whether the

advantages of such a tool will outweigh the resource costs required to develop it and manage it in the long term. Ultimately the creation of the virtual tutorial worked well in this instance at the University of Surrey leading to the enhancement of information literacy provision for Heath and Social Care students and reducing demand on staff during a peak time of the academic year. Further, with more and more opportunities to work with new and developing technologies as information professionals, we wanted to explore the potential for integrating these technologies in our work, and then to share our challenges and experiences with others in order to help them to address similar issues in their organisations.

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