BRIEF COMMUNICATIONS

Digital audio lectures: a library’s path to sustainability*

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INTRODUCTION

Technology is rapidly transforming traditional library functions, and librarians must ensure that their libraries and services remain valuable, sensitive to user needs, and sustainable into the future.

Technological advances in the past several years have enabled libraries to create new services that before were not possible, such as virtual reference, personalized [online public access catalog (OPAC)] interfaces, or downloadable media that library customers can use in the comfort of their own homes. This increase in available technologies gives libraries the ability to offer improved, customer-driven service opportunities. [1]

The Robert Wood Johnson Medical School (RWJMS) Media Library used available technology to upgrade a thirty-year-old lecture recording service. The improved, customer-driven service not only assisted students with learning and helped faculty with curriculum development, but has more fully integrated the media library into the rest of the school and revitalized its basic mission.

As school librarians ponder using technology to enhance their services and to strengthen their role within the larger school framework, they may want to consider the experience at the RWJMS Media Library, which has produced sustainable results by responding to customer needs and preparing adequately for change.

BACKGROUND

The RWJMS Media Library, which currently provides curriculum support to approximately 340 medical students, started on the path to digitization in 1976 with a new cassette tape copying service. Students brought blank tapes to the media library, where library staff made copies for them. The cassettes were used by students to review and to scribe lectures for a student-run note-taking service. The media library staff often copied 700–800 tapes per month.

In 2004, a few RWJMS medical students asked whether the media library might provide digital versions of lectures. The media library responded by consulting with the University of Medicine and Dentistry of New Jersey Information Systems Technology (UMDNJ-IST) staff, who recommended using Windows Media Encoder to digitize the audio. UMDNJ-IST also suggested that the media library host the files on the UMDNJ web server in the WMA format with password protection. Although the audio files were not indexed in the OPAC, they were available to students and faculty via links on both the media library and the RWJMS websites.

In 2005, informal student feedback to the upgraded service was positive; however, students indicated that the sound quality needed improvement. The media library solved this problem by working with the RWJMS Audio-Visual Department to extend the existing audio feed from the lecture hall directly into a computer in the media library. The direct feed not only solved the sound quality problem, but it meant that the media library no longer had to send work-study students with cassette tapes to the lecture hall to record the lectures.

In 2006, students requested audio files in the MP3 format so that the files could be downloaded to iPods. The media library reached out to the UMDNJ-IST for help on how to convert the WMA files into MP3 files with iTunes software. Because MP3 files are generally larger than their WMA equivalents, the media library uploaded both formats to the server to accommodate users who still wanted the smaller files.

Between 2007 and 2008, the media library expanded access to the audio files by setting up a really simple syndication (RSS) feed located through the university portal <my.umdnj.edu> and nonuniversity news aggregators. The RSS feed reached more than 400 subscribers by early 2009.

From November 2007 to February 2008, the media library wished to gauge student reaction to the upgraded service. Using an 11-question online survey of first- and second-year students, the media library learned in part that 51.3% of all first- and second-year medical students felt that “Audio/Lecture Editing/Posting” was the most useful service the media library provided. This service ranked higher than “Collection” and “Helpful Staff,” with a combined response rate of 45.2%. Regarding access to digital material, 51.7% of first-year students and 45.7% of second-year students responded “Yes” to subscribing to the RSS feed available through the university portal. Finally, 62.3% of all students responded “Very Satisfied” with the access the media library provided to the audio files.

In 2008, the media library was moved out of the RWJMS Office of Education and into the RWJMS Office of Information Technology (OIT) as a result of a larger administrative restructuring at RWJMS. The media library now receives all technical assistance from the RWJMS-OIT and taps into its resources. For example, the media library serves the audio files via iTunesU (a free hosting service from Apple Corporation), which is possible because the RWJMS-OIT has a service agreement with Apple Corporation.

* Based on a presentation, “Digital Audio Lectures: Securing the Library’s Future,” given by Zana Clair Etter, AHIP, at the Health Libraries Group (HLG) Conference held in Cardiff, Wales, UK, on July 21, 2008. The HLG is a special interest group of the Chartered Institute of Library and Information Professionals.
As the media library looks forward, it is likely to expand the recording and distribution system to include special presentations or workshops, faculty research, student-led initiatives such as meetings, programs, or course-related material, which could be used to enhance learning and sharing of information. Furthermore, the media library might incorporate audio content into a web-based course management tool, such as Angel Learning System, or into a digital object repository that houses all electronic presentations, handouts, and notes from lectures.

**ANALYSIS**

Clearly, the RWJMS Media Library digitization project helped not only students and faculty, but the library itself. The media library staff has developed new, marketable skills, and the media library director and her staff have developed new working relationships with several departments outside the library, which has integrated the media library more thoroughly into the medical school's administrative structure. However, the biggest benefit for the library may be the continued support the media library has received from the RWJMS administration in the face of budget cuts to education at the state level and subsequent belt-tightening at RWJMS. Indeed, it appears the media library has entered into a self-nourishing cycle of growth, where improved services lead to increased satisfaction that, in turn, leads to administrative support that allows for the development of new and better library services.

**ADVICE FOR LIBRARIANS**

The RWJMS Media Library has taken several years to perfect the digital audio-recording system. During the process, the media library has developed guidelines for managing change to existing and future services.

- **Staff must be flexible and adaptive.** The media library has learned that upgrading a service means more than applying new technology—it means changing how one thinks as a librarian. To accommodate the new procedures, the media library director has had to adjust workflows and rewrite job descriptions. The media library staff had to learn new skills. Because upgrades to the lecture-taping service required reliance on the advice and skills of other departments at RWJMS, the media library has had to adapt to working more closely with employees outside the library.

- **Library services must be continually upgraded.** The media library has made yearly upgrades to the service, because technology develops rapidly and students seem to expect the latest innovations. Failure to make these changes would not have served the students and faculty very well, and, of course, it might have reflected poorly on the media library as well as the school.

- **Methods of distribution must be overlapped.** Since 2004, the media library has avoided disruptions in service by overlapping the new and existing methods of distribution (Figure 1). For example, the media library still made analog audio copies of lectures for two years after the digital format had been introduced. Likewise, the WMA format remained until the MP3 format had been available for two years. Overlapping service upgrades and thoroughly testing new features has helped ensure uninterrupted service.

- **Faculty must be willing partners.** For thirty years, RWJMS faculty did not seem to mind having their lectures recorded and distributed via cassette tapes. However, the switch to digital recording and downloading via the Internet led to questions about
copyright protection and patient confidentiality, because patients are sometimes interviewed during lectures. Faculty concerns were largely allayed by password protecting the files and not recording lectures during which patients spoke. With the faculty onboard, the digitization project could move forward.

- **Senior administrator support must be adequate.** The low set-up costs for the lecture audio-recording and distribution system may have been a major factor in the senior administration’s decision to fund it. Once the upgraded service became widely used and integral to student learning, the senior administration provided ongoing support to and recognition of the media library’s efforts. Support came in the form of upgraded computers and technical advice from the RWJMS Office of Education and the RWJMS OIT.

- **New services must be advertised.** Even though the lecture audio files had been available for download since 2004 and users had been made aware via email, the media library was surprised that some faculty and even some students did not know about the service. The media library took several steps to advertise the upgraded service. Students learned of the service in orientation. Students and faculty received updated information via information kiosk in the media library, a blog, email, presentations at meetings, and printed handouts. The service appears to be well known throughout the school, now that the media library has many ways to advertise it.

- **Errors must be analyzed and corrected.** Since 2004, the digital recording service has run smoothly with only occasional glitches. These disruptions have included power outages, unplugged microphones, inaccurate schedules, deleted files, and so on. The media library has mitigated most of these problems with better use of technology (e.g., surge protectors) and better communication (e.g., asking faculty to inform the media library of changes to the schedule before lectures take place and not afterward). The media library also keeps a log of the errors and their solutions, in case previous answers might also solve future problems.

- **Expectations must be managed.** With each improvement in service, faculty and students seem to expect more. The media library has learned the importance of explaining the nature and extent of any upgrades to the system. Providing clear and accurate information distributed through as many channels as possible seems to help keep expectations in check.

**CONCLUSION**

The transformation of the RWJMS Media Library service to provide digital media for download to students and faculty alike has proved to be more than an application of new technology, rather it has been an exercise in change management that has strengthened the library’s position in the school, which in turn has led to a more sustainable future.

Success means many things for librarians. Staying relevant is one of them. Just as the RWJMS Media Library has created a pathway to a sustainable future, other school libraries may achieve similar results by making meaningful use of technology and following a few principles of change. New services must meet student and faculty needs for choice and flexibility. New services should not replace existing services until they are fully tested. New services have to be accurately and vigorously advertised to students, faculty, and administrators. Adhering to these principles for change can ensure that school libraries remain relevant to the educational missions they serve.

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