AN IDEA FROM THE FIELD-21ST CENTURY SERVICE TO ALL USERS

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Abstract:

Over the last two years the Engineering Library at the University of Texas at Austin has made significant investments in developing hands-on instruction classes and creating web-based distance learning tutorials. Experience as shown that these do not always meet the needs of international students. Each year over 1000 students from more than 20 countries come to UT to study engineering. These students come with a range of expectations, information gathering skills, library experience, and comfort with English.

Recent advances in information and communication technologies have made it possible for the library to reach out to these students in their own language. The first part of the paper briefly describes a project for adapting existing programs and tutorials using voice over-web technology.

The second portion of the paper consists of a proposal to technical librarians that we form a group work toward creating modifiable and "brand-able" templates to show how highly specialized web based tools should be used. The templates would be in the language of the tool but customizable so that various language voice-overs could be added.

Background of Project

Every undergraduate engineering student in the University of Texas, College of Engineering is required to take technical communications (AKA technical writing) as well as several classes that include a "major writing component." These courses have historically been a major portion of the Engineering Library's bibliographic instruction program. In most years the library gives over 60 bibliographic instruction classes to nearly 1800 students of which nearly half are concerned with technical communications. The content of these presentations centered on the idea that if a student knew what kind of information he was seeking, then he would then know what kind of tools to use.

Over the years experience has shown that most students do not understand the difference between the kind of information generally found in books and the kind found in a journal articles. This confusion often leads them horribly astray: looking for articles in the online catalog or using an index to find factual information. The need to remove areas of known confusion and the need to teach our students how to differentiate between theoretical, experimental, and factual information is always important; but this is the crux technical writing. In technical writing assignments can vary from producing an executive summary of a technical problem to writing an article suitable for publication in a trade journal. In the past each class section came to the library for a one-hour lecture, which included a computer demonstration. The demonstration covered techniques for thinking about each student's specific information needs and then ways to translate this information into selecting "likely tools." The addition of a computer lab two years ago allowed the library to migrate to the hands-on environment where students could actively experiment under the guidance of a librarian. The early results were chaotic, but the students did have fun.

It quickly became obvious that the chaos stemmed from two distinct problems: we needed some type of organization and our international students were often quite lost. To reduce chaos and increase learning opportunities we created web pages that would serve both as an outline for the instructor and as a tutorial for students who either missed the class or needed additional help. These early pages were fairly effective but needed to be snazzier and more interactive; therefore in 2000 we added additional features. To see the tutorial go to: www.lib.utexas.edu/engin/usered/index.htm.

The new features included the addition interactivity as well as a bit of humor. Humor was added for obvious reasons—to cut down on boredom and thereby increase-learning opportunities. Interactivity was added for the same reasons—to keep students attention and to increase learning.

Basic interactivity was made possible through the use of frames pages, which meant that instruction could be given in one frame and the tool being discussed could be presented in another frame. Students were instruction to input pre-selected searches into the "tool frame" and then get the results. The searches were pre-tested so that they provided relevant. These results could be examined and discussed in the class.

After one semester it was clear that we the new tutorial was a success for the majority of our students who learned enough on first pass to either "get on with their project" or enough know they needed to ask for specific help that wasn't included in the tutorial. However this same experience showed that our International students were still having trouble. After talking with the professors and listening more closely to student-staff interaction it became clear that a major problem was lack of context—that is deducing meaning from the context by using previous experience with library or research topics.

Both library staff and faculty thought that this was because International students have had limited or no experience with this topic in English and in some cases they have very limited library experience. We also know that many are reluctant to ask for help probably because the language barrier or because they do not "know" that asking for help in a library is "part of the program" and is in fact encouraged by both library staff and their instructors.

After some limited experimentation we decided that the ability to deduce meaning from context was a real problem in library instruction even though it may not be as evident in their math and science classes. It is probably not as evident because they have had substantial experience with these topics in their own language. As staff thought about and discussed this problem with colleagues and faculty we came across a relevant story that perfectly encapsulates the problem:

"An international student from Russia married an American Graduate student. At the wedding the ceremony and toasts were given in English and translated into Russian. After one toast: "May you live long and multiply" the groom noticed that the Russian guests looked perplexed. When questioned they answered, "Why would a married couple want to do arithmetic?"

Just so, why would a married couple want to do arithmetic?

This story sums up our problem—International students did not have enough or the right vocabulary to actually understand what was being taught. The following describes our project which is designed to ameliorate some of these problems by helping students gain needed context so that they would not be as "perplexed by vocabulary" or as reluctant to ask questions.

Project: adding voice-over narration in selected Languages:

After much thought and discussion, it was decided that the most effective way to improve the existing tutorial and to increase learning potential was to add another learning avenue—hearing. This would be done through the integration of voice-over technology into the existing tutorial. The text would continue to be in English because frankly most science and technology tools are in English. The students would still see the tools, the explanation and demonstration of actual searching in English but they would now have the opportunity of hearing a portion of the explanation in one of several languages.

The addition of voice-over would also permit us to add definitions and synonyms for library and research words often used in English. For example, the text might not use or define the various synonyms for journal but the voice-over could make the point that journal, serial, periodical, and magazine are often synonymous in English.

Several of the Technical Communications professors asked that we add some additional information on the purpose of a bibliographic citation and the definition of plagiarism in the academic environment. The faculty felt strongly that many international students did not have a clear understanding of the nature of plagiarism and why it is unacceptable and that this was a good opportunity to cover this in a non-judgmental way in the students own language.

Where are we now?

The following decisions have been made:

- Voice over script will be short and to the point.
- Recording will be in mono not stereo to lighten bandwidth demands.
- The "voice" will reinforce and explain written text.

We decided not to use a "talking head" for a number of reasons including the impact it would have on load time and bandwidth consumption. But the main reason was that a talking head would overemphasize the speaker. The voice-over is supposed to re-enforce the existing text not give the lecture.

We are currently adding the content on plagiarism, as well as interviewing people with translation skills in Spanish, Japanese and Vietnamese. The first people interviewed are library employees in technical services with language skills. We decided to look these first employees because of their familiarity with information terms in both English and their other language. We selected Spanish, for obvious reasons—we have many Spanish speakers in Texas. Japanese was selected because we have a Japanese student employee who was very excited about the project. Vietnamese was selected at the request of the Technical Communications faculty. They felt that this group of students was having the most difficulty and would benefit the most.

After some discussion we decided to use student who are good native speakers to do the actual voice-over work. This decision is based on three ideas:

- We wanted a younger and more relevant voice.
- We wanted native speakers so that the language pacing and style would be that used in every day speech.
- We hoped using a younger, more hip voice might reach our students more effectively.

We are currently writing, "job descriptions" for the student voices which will be posted in the International and College of Engineering Dean of Students offices. We hope to have their help particularly in selecting the Vietnamese voice.

Funding

This is being funded as an internal library project. Staff translators will be given released time from their regular duties. The student voices will be paid an hourly rate for doing the voice-over work

Tools selected

The following tools have been selected for use in this project:

Dreamweaver <u>http://www.macromedia.com/software/dreamweaver/</u> Makes creating basic HTML code a little easier because it has an elegant easy to use interface.

SMIL (pronounced smile) is a markup language (like HTML) coordinates a variety of multimedia on Web sites so the display can be properly synchronized.

Camtasia: <u>http://www.techsmith.com/</u> was selected because it is relatively inexpensive and toolkit allows you to easily add screen recording to a Windows ® application.

The Idea—A Proposal:

After all this background, it is now time to discuss the idea. Even though English is thought of as "the language of science" and most of the important electronic tools such as SciFinder Scholar, INSPEC, Compendex, and Web of Science are primarily in English many users are uncomfortable learning how to use these tools in English. IATUL is made of librarians with similar training needs who read and speak a number of languages. My proposal is that we work together to leverage our shared skills and knowledge to form a group charged to create a series of web based technical tutorials for a world audience.

This group could select a list of commonly held tools and then organize the creation a series of tutorials. The actual text of the tutorial would be in the language of the tool; however there would be many voice-over narrations in selected languages. Each script would cover the basics in the language of the tool. In this way even though the tools and the tutorial might be in English (like INSPEC) the user could request and get a voice over in selected languages.

The tutorial might be modularized so that each institution could add special notes or fields that cover areas of particular interest. For example, the tutorials could be individualized to show how users in a specific location should access the tool. It should be possible to leave space so that each institution could "brand" the tutorial by adding its logo, address, name, and etc.

This would create a "shared body" of tutorials on basic topics. These could be used for many purposes including:

- Distance education
- On-site information literacy
- Marketing

Some of the potential tasks include:

- Getting a group together
- Select "group ware" so the team can work over the web
- Creating templates to plug tools and text into
- Selecting specific reference tools
- Organize and write tutorial text
- Select language and translator
- Select narrator
- Vocalization—add voice-over to the tutorial
- Test tutorial

The very first step is to contact each other and brainstorm. There are several potential avenues, including chat.

Conclusion

Information access and retrieval is now both simultaneously easy and complex. This means that information literacy programs will need to reach out to potential users in ways that are meaningful and helpful to these users. My proposal is that the technical library community work together to create meaningful tools in the languages of our users.

The proposed project is one way for technical librarians to help users learned how to select information tools, use these important tools, and differentiate between the information access tools most likely to provide the best sources for the job at hand.

Please contact me if you are interested in this idea.

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