Wiki, Wiki, Wiki... Textbook?

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by Sean Lancaster

You may or may not have heard of the term "wiki" previously. A wiki is simply a type of website that is editable by any visitor. For example, a teacher could use a wiki site as a way to have her students work on collaborative writing. Perhaps the most popular wiki project in the world is Wikipedia. In fact, Wikipedia is quickly growing into one of the most popular information sources online. Wikipedia is an online encyclopedia that is created by the world community of users, including you, and anyone who has an interest and some knowledge to contribute. The project has tens of thousands of contributors and a recent study by *Nature* revealed that Wikipedia contained about the same small number of errors on science-related entries as the Encyclopedia Britannica. In other words, Wikipedia has now become the largest encyclopedia in the world, and it is about as valid as printed encyclopedias.

You may be wondering how a wiki gets started and how it matures. Using Wikipedia as an example, you could visit the site and from any current page, create a link using the simple instructions for doing so. Once you create an internal link, the page is automatically created and ready for content. You can click on the link you created and begin adding content right away. If you have not visited Wikipedia, you should find exploring the site now worthwhile. And, while the site has been found to be largely reliable, any person could visit any entry and change content at any time, so finding more than one source of information is a good idea. Managers at Wikipedia can correct any pages that have been vandalized and restore previous versions when necessary. A recent scandal involved politicians in Washington who were apparently having their entry on the Wikipedia site altered to remove blemishes in their records...but they were caught and the site was restored.

I coordinate an undergraduate course for computer science. We previously used a textbook that cost about $80. In the past few years, we have made the shift to a textbook that some of the instructors wrote, and the cost is now down under $30. But, in the field of technology in education, much information evolves and emerges each year. The constant revision and updating of textbooks can be a tedious process. I began to explore using a wiki as a textbook. My thinking is that the same instructors who wrote the paper textbook could write a wiki-based textbook; however, any ed tech professional could contribute to the online version. A wiki-based textbook could have a gatekeeper who would approve of any authors who wanted to participate in the project, unlike Wikipedia, which allows anyone to participate. The wiki is designed to allow for much collaboration as the project moves forward. Some participants might have an expertise in one area of the field while others might be able to fill in the gaps in other areas. We are currently working on just one chapter, and we are able to add text and images, just like a textbook, but we can also add podcasts (audio) and video and even animations to help illustrate points. If there is a trusted online source that can complement the information being discussed in the wiki, then a link can be embedded to provide the student with that material as well. Wikis are a true hypertext medium, with non-linear navigational structures.

Of course, the technology in education course appears to be a natural fit for a wiki-based textbook. But what about K-12 schools using a wiki-based textbook? Along with other professionals in education, I am now exploring the notion of writing K-12 textbooks using a wiki tool. The benefits are many, including current and free content. The key disadvantage is that not all students will have access to the online textbook when it is needed. I think schools could save much money if they printed out a copy of the textbook in August using a service like Lulu.com, which allows books to be printed on demand, as opposed to printing 1,000 or some other set amount. Lulu.com charges a very small amount for a textbook, so schools could have printed textbooks that are current and affordable (e.g., a 200-page book printed and perfectly bound is under $10). If teachers in the district wanted to add lessons to the wiki textbook, they could do so. If school boards wanted to emphasize content then they could do so. Each state could have a wiki textbook that is available on the state's education website. The textbook could cover the state standards across various content areas. Each district could download their copy of the wiki textbook and do any customization before printing, if they intend to print. The wiki text could be available online as well and the district could lock the content during the year, but teachers could be making behind the scenes edits to provide better or newer information, which could be added each summer before the next version gets printed. Further, this editing and revising would not have to be an annual process just as most schools use textbooks for many, many years right now.

My hope is that this concept catches on and becomes the norm in schools around the country. I enjoy seeking and finding technology solutions to solve budgetary constraints in our schools and this type of project could provide many students with current and customized information on demand. The medium allows educators to push the boundaries of the concept of a textbook, and I believe there are many people like me who would contribute to a project like this for no monetary gain. Sometimes doing the right thing is incentive enough. ☺