

Using a Wiki for Group Projects

Most people are familiar with the use of a wiki from their experience with Wikipedia. The operators of Wikipedia define the site as “the free encyclopedia that anyone can edit” (*Wikipedia.org*). This definition encapsulates the central aspect of a wiki: a wiki is a place where people can gather information and edit it collaboratively. Indeed the defining aspect of a wiki is the very reason many educators are so cautious about Wikipedia—truly *anyone* can make a contribution, without much if any editorial oversight.

A wiki in its simplest form is a site in which people gather and edit information: it can be either publicly available on the Internet or be made privately available only to everyone on an institution’s network, or intranet. It is a tool for collaboration that, once established, is typically authored, maintained, and perused through a Web browser or a browser-like interface (even if the wiki is on the local network only). A wiki allows authors to include in their articles direct links to online sources and to integrate and document Web-based materials, images, and so forth in the gathered information. As a result, a wiki is a unique tool by which groups can gather, synthesize, and integrate information and concepts.

Gathering and Sharing of Material

As a collaborative tool, a wiki can be extremely helpful as a repository for information. Students can be assigned the task of gathering information to write articles on a particular subject using external sources beyond the course textbook and material. Students post to the wiki and link information within it, and the body of knowledge grows and can lead to a complex body of material. As students see and are prompted by the contributions of their peers, the quest for additional knowledge and the desire to seek further information expands.

Students can also develop a wiki by gathering information that is found specifically within the parameters of the course material. Students can be asked to assemble a body of material collectively; this body of knowledge can then serve as the foundation for a future exam or as a way for students to collectively refine their notes regarding a particular topic. Collaborative exercises, such as the communal sharing and synthesizing of information after a topic has been explored in the classroom, ensure clarity—or recognition of its lack—for you and the students alike.

A wiki can also be a helpful way to synthesize information to prepare for classroom activities. Again, because wikis are most helpful as a collaborative tool, you can ask students to develop articles to identify important themes in a piece of literature, or you might have them update entries to consider what might be the best example of a particular problem. As students make their own contributions and engage in “cyber dialogue” with their peers, their classroom experience allows for a deeper exploration of the subject at hand through the preparatory work done on the wiki.

The body of knowledge that is collectively assembled can be an end unto itself, or it can serve as a resource for further coursework. Students can be asked to research a particular topic, and the body of knowledge can serve as a resource for a research or position paper.

Beyond offering space for a group to assemble a body of knowledge, a wiki offers a site for shared creativity, where the students supply their own knowledge. As a wiki offers editing functionality to all participants, students can engage in collective creative writing or thought-provoking rewriting. A fun exercise is to post a parable to a wiki and ask the students to “edit” the parable for a modern audience or modern values. At the completion of the editing process, have the students examine the reasons for the changes that were incorporated and consider the values that underpin their collective choices.

A wiki can also function as a blog of sorts, and it can be used to either introduce or review course material. You can offer information, and the students then have the opportunity to consider the



information and ask questions. These questions can be viewed by all, allowing others to benefit from the answers. Wikis can also allow peers to answer one another, thus deepening their integration of the course material. Or, students can be asked to produce one collective summary of course material via the wiki. A wiki can therefore offer students the opportunity to teach one another, and it can provide you with the opportunity to see the level of comprehension that students possess.

An important element of the wiki is the paper trail: the way the wiki tracks updates and versions. Each contributor to an article is identified, along with the time the contribution was made. When you need to assess group work and individual contributions, this paper trail is invaluable. This tracking also offers a history of the editing. It clearly documents the process by which students achieved the final product, which can offer insight into whether the process was systematic and how people worked together. One editing choice leads to another. The documentation of not only changes to group work, but the order in which they were made, can provide interesting insights.

Depending on your needs and the type of wiki technology used, a wiki can be helpful in allowing students to work online or on a local network, while providing privacy. Many educational software packages include the possibility of creating a wiki. Blackboard, for example, offers users the ability to create a wiki for a particular course. Once you set up the wiki, the authors of articles have the option to invite others to view or edit material included in their entries. Privacy, or limited viewing capability, can be important for a variety of reasons. For example, one assignment can ask students to synthesize material that is copyrighted. Because the wiki is private (and therefore not available for public consumption), students simply need to document as they would with a research paper. Privacy also allows students the freedom to construct entries over time, if necessary, before making their work public.

Beyond its importance as a collaborative tool, a wiki can also be an important tool for future access. After assembling a portfolio, for example, students frequently return to their material months, even years after completion. Building the portfolio in wiki format ensures the survival of the work, and you can set access permissions to permit the students' continued use and possible revision of the material. Posting their work on a publicly available wiki may also allow students the opportunity to share their wiki with potential employers, teachers who will be asked to write letters of recommendation, and others.

Start Small

Although wikis are very easy to use and incorporate into course design, you will want to begin on a small scale. Rather than designing a semester-long project around the wiki, begin with a shorter assignment of less importance. Starting small allows both you and your students a chance to become familiar with the technology, explore its possibilities, and assess the wiki's effectiveness as an instructional tool, without significant risk the first time around. Starting on a smaller scale also allows everyone, you and the students, to work through the kinks. As is true with the introduction of any new educational tool, there are often unanticipated elements of both the process and the results. Though the unanticipated elements may be positive, starting small allows you the opportunity to assess and make necessary changes without having to reconfigure the entire course. After you establish familiarity with the wiki and you understand its effectiveness in helping to achieve learning goals, then take the bigger step.

To build a wiki, first check to see if your school or institution uses software that offers the possibility. Many software programs offer instructional videos. If not, online resources are plentiful. *Writeboard.com* is a good resource for smaller-scale wikis. Writeboard might be a good place to start exploring the possibilities and familiarizing yourself and your students with the technology. *Writer.zoho.com* also offers a good starting place and is very user-friendly. To begin you simply need to create an account with a user



ID and a password. Many sites walk users through the process in very clear and easy-to-follow explanations.

Software for more complicated wiki construction can be found, such as that provided at *Mediawiki.org*. Some wiki construction sites are free, while others require a subscription. *Pbworks.com* offers shared workspaces (a type of wiki) specifically designed for educational purposes, among others.

The Science of Spectroscopy provides many links for both the establishment and use of wikis: www.scienceofspectroscopy.info/edit/index.php?title=Using_wiki_in_education.

Another good resource comes from Educational Wikis, which offers testimonials from teachers and examples of wikis from specific classes: educationalwikis.wikispaces.com/Classroom+Wikis.

As with any educational tool, a wiki can be a vital learning mechanism, assuming an assignment has clearly articulated goals. The effective use of a wiki, as with any use of technology in the classroom, requires clear learning objectives and an accurate understanding of the contributions wikis can make to those objectives. Although wikis are not universally useful, when employed in concert with learning objectives a wiki can help both students and instructors achieve greater clarity and deeper integration of course material.

