

Wikis in Education: Technology Enhanced Collaboration

I. Introduction – So much more than Wikipedia

Most people are by now at least somewhat familiar with Wikipedia.com, the infinite online encyclopedia which anyone can edit and everyone can use for free. Although *Wikipedia* can be a very valuable tool (for example, the best online article defining a wiki is found on *Wikipedia* - <http://en.wikipedia.org/wiki/Wiki>), it is just one example of what a wiki can be, and in fact may be so popular that it limits creativity for new wikis. A wiki is simply a website that allows users to access, add, edit, or remove content easily and quickly, all while tracking what changes are being made and who is making them. In addition, wiki software allows for easy linking from one page to another, making navigation between different pages simple and intuitive. This feature also allows anyone who knows about a particular subject to create a new page linked off a preexisting one to provide further discussion, examples, or resources for that topic.

Wikis employ a script (or computer language) that must be mastered in order to create a wiki or author a page within the wiki. This script allows the user to do things like write texts in bold or italics, link to other websites, or add pictures and multimedia to the page. The scripts are not difficult to learn (they are much simpler, for example, than html) and once acquired can make editing a snap. Most wikis have helpful guides on editing and creating new pages, and with a little patience, producing your own wiki can be an easy and rewarding project. However, not all wikis use the same format, a point which will be discussed below, so while exploring the free wiki sites listed at the end of this paper, try to choose the one whose editing interface seems the easiest to use. In addition, at the conclusion of this paper you will find an appendix with a step-by-step guide to creating your own wiki.

The Wiki's strength lies in its ability to bring students together to work on projects collaboratively. If you are looking for a way to structure group projects, learn how to complete an assignment together, or combine their knowledge for everyone's benefit, then give a wiki a try.

II. Positive Aspects of using Wikis in Education

A. Encourage students to work together

The most basic educational value of a wiki is that it will bring students together to work on projects. The way a wiki is structured means that all students collaborate to create the same online space that is usable both by themselves and

other students. In addition, each student has the ability to add new pages linked to an existing one, meaning that each should be able to participate by adding their own knowledge to the communal wiki.

B. Great place to store notes for meetings or a project

Because of its structure, wikis work well to store minutes from meetings, providing access to everyone in the group. Even better, because of the linking features found in a wiki, someone can go back to previous minutes in which a specific problem was discussed, and then link to a new page in which a possible solution, discussion, or a decision is posted.

C. Create a source for future classes to build on

The blog will allow a student the ability to continue their own development after the semester, but the wiki allows future classes to build on the work already done by a previous class. If the wiki is being used to store information, then this will allow students to see what earlier classes had done with the assignment, and add their own information or even correct that which is already there. This kind of skill can be particularly useful for students preparing for a field in academics in which they need to be able to assess the current state of their field and be able to add new research, theories, or corrections to an ongoing discussion.

D. Students learn valuable collaborative writing

For those students not pursuing a career in academics, it is quite likely that whenever they write in the future it will be with other people. Businesses often emphasize teamwork, so reports and project work is done collaboratively. If a person has used a wiki in class then they will have experience working with others to create a final project (though no wiki is ever really "final," another possible advantage).

E. The wiki tracks the edits

Practically speaking, with most wiki software it is very easy to determine who made which edits and when. This can be particularly useful for educators who are assessing participation in a wiki project as part of a quantitative grading system, or if he/she want to see how the project developed and who was leading it. Also, this means that students can feel safe changing things and trying new ideas, because if he/she dislikes the new material it is very easy to revert to the old.

III. Potential Negative Aspects of Wikis in Education

A. Technology concerns

The skills needed to effectively use a wiki are definitely more involved than for a blog, but this is mainly because so much more can be done. Wiki software almost always uses a wiki script that authors will need to learn. Luckily, the scripts are easy to pick up and are certainly quicker to learn than html.

However, not all wikis use the same script, meaning that if someone has the knowledge to use one wiki it will not automatically transfer to another, though the basic skills will be the same. Some wikis do provide an easy edit option, which functions much like Microsoft Word, but sometimes these can be difficult to use. Plan on spending at least one class period instructing students how to use the wiki tool, and expect a few questions, especially in the early phase. Luckily, as with any program, after students use it a few times they shouldn't have any more problems. (I have included some helpful tips to get started with a wiki in the Appendix below).

B. Security

Like the blog, it is possible that there might be security issues when using a wiki. Fortunately wikis can be restricted, just like blogs, so that only certain people have access to the wiki or the ability to edit it.

C. Students might feel as if there is nothing left to do

With any group project, there is a risk that some students will feel as if there is nothing for them to do. This will probably be mitigated somewhat with a wiki, if only because it is so easy to add another page that enhances the wiki as a whole. However, some instructors have reported that their students could feel left out of a wiki project when the more aggressive students took over most of the work.

IV. Sample Uses for Wikis in Education

A. Art/Literature criticism

One particularly impressive wiki (http://node51.cit.geneseo.edu/WIKKI_TEST/mediawiki/index.php/Main_Page) functions as a tool for poetry criticism. The advantage of the wiki is that all students begin with the poem and are able to link from it to another page they create discussing a particular theme or issue. This idea can be applied with any type of literature, art, equation, or anything in which it would be advantageous to have the object studied on the first page of the wiki, and then students could link to various commentaries and analyses.

B. Gathering research

This would function much like Wikipedia, except that it will be for a small group of people on a particular topic. This would allow the students to share their research and add to each other's. Also, this wiki could be much more detailed and specific about a particular topic than Wikipedia ever could.

C. Students create a database of info for future classes

Expanding from the previous suggestion, whatever database the students create could be very valuable to future classes. The new students would be able to add to the existing wiki, centering on what they might be particularly interested in, or to modify it, accommodating any changes in the course's structure that have been made since the last group of students cycled through.

D. Departments can gather information

Although this is not a suggestion tied down only to the classroom, it should be noted that specific departments can use a wiki as a store of information that can easily be updated. This would allow for greater ease in updating documents by any faculty member and quickly making them available for student use.

E. Collaboration between classes/departments/schools

The wiki would function at its best when it is applied as a tool to be used by multiple people in different situations. In the smallest sense, multiple classes within the same discipline can use the wiki to store information and add to the knowledge pool. More exciting would be different departments combining their knowledge into an interdisciplinary wiki. For example, a 20th century American History course could create a wiki with an American Popular Music course. The two student groups could combine their knowledge to better understand the historical context (for the music students) or the art that was produced as a result of certain events (for the history students). Obviously this sort of interdisciplinary thinking would not be new to either department, but with the students taking the active role of sharing the information, they would both learn their own material more fully and also get practice in sharing facts and ideas through writing with others. A wiki could very well go beyond this and even combine classes and department from multiple universities.

F. Author a collaborative paper

The wiki is a great forum in which students can work on a collaborative research paper, which will probably be more useful for some students in the future than solo projects. The students can begin by gathering all of their research and sources into the same wiki and then begin sharing ideas on how to combine it into a final essay. Often this type of work is done currently via email, but with a wiki the students will never have to wait for each other to work on a draft and send an email, which can cause the problem of multiple drafts and much time lost waiting on each other's work. In the wiki, the student will always see the most recent draft. This idea might work particularly well in a graduate level class in which the students could produce a final project for publication.

V. Links to Further Resources

A. Free wikis to try

All of these wiki programs are free and will allow you to have your own wiki up and running in no time. They all also contain editing practice pages that you can experiment with before setting up your own wiki. So try them out and see which one would work best for you.

www.pbwiki.com

www.wikidot.com

www.wikispaces.com

www.wetpaint.com

www.wikia.com

B. Wikis for education

http://en.wikiversity.org/wiki/Wikiversity:Main_Page – *Wikiversity* is a collaborative wiki for all those interested in teaching or learning. The material is divided into “schools” for each area of knowledge. This site might also be helpful in forming lesson plans.

http://wiki.literacytent.org/index.php/Main_Page - Dedicated to the promotion and instruction of adult literacy programs.

http://www.simteach.com/wiki/index.php?title=Second_Life_Education_Wiki – Main wiki for discussion of how to use Second Life, an online virtual environment, as a tool for education.

C. Some sample wikis used for education

www.podcasting-gmu.wetpaint.com – Great example of a student produced wiki. This one was designed by students at George Mason University and discusses the advantages and skills needed for quality podcasting.

<http://www.budtheteacher.com/wiki/index.php> - A wiki used for K-12 education.

http://idea2product.net/index.php?title=Main_Page – A wiki from The Ohio State University in which students from a 400 level Engineering class worked on group projects to analyze different technologies.

http://node51.cit.geneseo.edu/WIKKI_TEST/mediawiki/index.php/Main_Page - A literary criticism wiki from SUNY Geneseo in which students work together to critique poetry and literature.

Appendix: Getting Started with a Wiki

Since learning to use a wiki can be more challenging than learning how to blog, if only because wikis offer much more, I have included this short section to alleviate some of the fear that might hinder use of a wiki.

1. First steps: Creating an account

I have selected to use www.wikidot.com for this tutorial because it is my favorite of the free wikis, and while it is not as immediately simple as www.pbwiki.com, it allows for much more usability, has fewer limitations, and does not place advertisements on the pages of the wiki. So, please go to

www.wikidot.com to get started. Click on “**Start a new Site!**” about half way down the page (see below), and then create your account (don’t worry, it is free to make an account, and I at least have not received any spam email as a result of my wiki account).

Search all the sites

Search query:

pages and forums pages only forums only

Jump to

<u>Start a new Site!</u>		<u>List of features</u> look what you get for free
<u>Community Site</u> and the <u>Community Forums</u>	<u>Sandbox</u> Our demo site	<u>Documentation</u> FAQs, reference docs, HOWTOs

2. Creating the site

After creating your account click on “**go go go! create my site!**” Note that if you would rather just experiment you can also click on the “**sandbox**” link which allows you to play with the script. However, you won’t be able to do quite as much and it is difficult to get back to a page you have created. If you follow these steps and are not happy with your wiki you can easily delete it if you are concerned about wasting virtual space or people visiting your wiki.

ed and you will be redirected to it upon success. You will be of course the a-

onality of Wikidot Sites we also invite you to visit our [Sandbox Site](#) where a engine in action.

free wiki network [help](#) | [terms of service](#) | [privacy](#)

Read and accept the terms (click “**I accept the terms**” on the bottom of the page) and you’re off...

3. Framing your Wiki

Now give your wiki a title (**site name**) and fill out the rest of the first form (make sure you select English, unless you can speak Polish). For your title, just

decide what you would like to make your wiki about. Maybe you want to make a wiki about OSU football, or maybe you want to make one usable by your department: the choice is yours. Also, if you would like to keep your new wiki to yourself for now, select **private access**, which you can change once you are ready. For the question "Are you a human?" just type the text shown into the box below. When you are done, click "**create site**" and it will load your new wiki.

Site name:	<input type="text" value="Digital Union Wiki Test"/> <small>Something that appears in the top-left corner of each screen</small>
Site "unix name":	<input type="text" value="digitalunionwiki.wikidot.com"/> <small>Only alphanumeric [a-z0-9] and 11 special characters allowed</small>
Subtitle:	<input type="text"/>
Site content language:	<input type="text" value="English"/> <small>Your Site will be created from a template specified by this language choice. Please note that only the English interface is complete. Other interfaces can result in mixed-language messages.</small>
Access:	<input type="text" value="Private - visible only to selected users"/> <small>You will be able to change this later. Free private wikis are limited to 10 members + 10 extra access permissions.</small>
Description:	<input type="text" value="A place for Digital Union types to explore the value of the wiki."/> <small>Please keep it short. 235 characters left.</small>
Are you a human?	<p>467E</p> <input type="text" value="467E"/> <small>Please write the code you can see above. This is to prevent automated bots. Upper/lower-case does not matter.</small>
New site code:	<input type="text"/> <small>If you do have such a promotional code, enter it here. If not - do not worry :-)</small>
	<input type="button" value="cancel"/> <input type="button" value="create the site!"/>

4. The homepage

First, take a moment to situate yourself by reading some of the help information that first pops up in the main window and on the right side. I will give a brief walk through of how to edit pages, but feel free to look at that as well. When you are ready, click on **Site Manager** on the left side of the page.

[Welcome page](#)

[What is a Wiki Site?](#)

[How to edit pages?](#)

[How to join this site?](#)

[Site members](#)

[Recent changes](#)

[List all pages](#)

[Page Tags](#)

[Site Manager](#)



Page tags

It seems you have no tags attached to pages. To attach a tag simply click on the *tags* button at the bottom of any page.

Welcome!

Welcome to your new site! **Please read this first!**

This page is just a welcome-page and you really mig the bottom of this page and delete this introduction

If you do not want to delete cotents this page, clicl e.g. `start0` page and start your fresh new Site thei

We have also prepared a few pages for your site to

- [nav:side](#) - left side navigation menu, edit if yc
- [nav:top](#) - top navigation menu, you can edit i

Our goal it to make a site customizable as much as | options. **Take a close look at *Permissions* section** options and allow other users to contribute too!

5. Setting preferences

From the **Site Manager** you will have access for all kinds of important tools, such as changing the appearance, setting who has access to edit pages, creating a discussion page (a nice feature not all wikis have), and storing files. Explore the **Site Manager** and change any settings you would so desire. When you are done with the **Site Manager**, click on the **name of your wiki** at the top of the page. That text is always linked directly to your homepage (which will still have the original welcome message). If you changed your appearance, you will see the new one once you return.

Digital Union Wiki Test

manage site...

[Welcome to site manager!](#)

[General settings](#)

[Custom domain](#)

[Secure access \(SSL/TLS\)](#)

[Appearance](#)

[License](#)

[Page templates](#)

[Public or private](#)

[Permissions](#)

Welcome to the site manager!

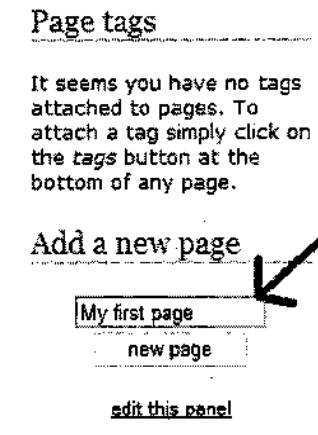
This is the administrative panel for your Site. But re **Responsibility**.

A few tips for your Site

- **Start a forum**
The simplest way to add interactivity to your *Forum & discussion* >> *Settings* to learn more
There is also a nice [Step-by-step howto](#) you
- **Use site tags**

6. Adding a page

Please note that you can begin by changing the first welcome page by clicking “edit” at the bottom of the page; but since this page has a lot of useful information that you might not want to delete until comfortable, it might be a better idea to first create a new page to learn the basics writing with the wiki script and editing. To do this, first think of a title for a new page and write it in the blank on the right side of the screen under “Add a new page.” Then, click “new page.”



This will take you to a screen titled “**Create a new page.**” Notice that the address in the navigation bar of your web browser has now changed by incorporating the title of the new page into your wiki’s website.

7. Adding text

Now type some text in the box. There are two ways that you can alter that text, by which I mean increasing the size or adding bold or italics. First, you can highlight an existing text and then click on the symbol above that corresponds to what you would like to do. The program then adds the appropriate wiki script. Highlight something and click the uppercase B on the top row. It should add ** before and after the highlighted text, which will cause this text to be bold. The other option to alter text is to enter these symbols yourself. Though it can take some time to learn all of the symbols, it will be quicker in the long run if you plan on editing and creating many pages. You can click on [this wiki syntax chart](#) which will tell you the code for everything. Try playing around with different effects. When you are done you can preview and then click save at the bottom to create your page.

Here is an example of the editing interface:

Create a new page

Title of the page:



```
I am now learning how to use a wiki.  
  
**When I type with asterisks, I can make my text bold.**  
  
_And this is how I do underline._  
  
//And here is italics.//  
  
There are also many types of headers.  
  
+ Here, for example, is header 1.  
  
+++ And here is heading 3.  
  
Below this is a horizontal line  
-----  
  
And finally here are some bullet points  
* 1  
* 2
```

And here is the final page:

My First Page

I am now learning how to use a wiki.

When I type with asterisks, I can make my text bold.

And this is how I do underline.

And here is italics.

There are also many types of headers.

Here, for example, is header 1.

And here is heading 3.

Below this is a horizontal line

And finally here are some bullet points

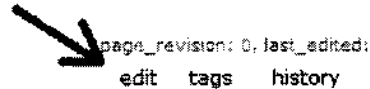
- 1
- 2

8. Adding links

A point was made earlier that adding links between pages was easy and one of the best elements of a wiki. Try to add one to your page by returning to the **edit feature** (if you have left it) by clicking edit on the bottom of the screen.

And finally here are some bullet points

- 1
- 2



Then click the **page link icon**,

Edit the page

Title of the page:



and add text in between the brackets

And finally here are some bullet points

- * 1
- * 2

[[My second Page]]

9. Reaching your new page

Now, when you **save** this page you will have created a new page that is ready for editing. Just click on the link in your current page to reach it.

And finally here are some bullet points

- 1
- 2

My second Page

This is one way that you or your students will add new pages to the wiki. If you see text on a page that you want to link to a new page, you can enter the

edit mode and put three brackets around each side of the text (or click the page link button), and the new page is created.

Spend some time mastering creating, editing, and linking pages and you will be well on your way to wiki'ing with the pros. Once you are ready, click the edit button on your homepage to make an inviting page. Then set your preferences (in the **Site Manager**) and you wiki will be ready to grow!