Teams LX User Guide
version 1.0

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1. Teams LX User Guide

The Teams User Guide is divided into the following sections.

1. An Overview
2. Using Teams as a Student
3. Using Teams as an Instructor

The Overview follows.

1.1 What is Teams?

1.1.1 Teams is a tool for Problem Based Learning. Inspired by the principles of Wiki, Teams is an integrated learning extension that provides instructors a way to create open-ended assignments within Blackboard. Teams allows students to work cooperatively in groups as they seek to formulate, organize and present their solutions online in the form of rich media websites. Using an easy to use browser-based WYSIWIG editor, students collaboratively author web content, upload images, link to documents and external resources, all the while forcing them to think critically and analytically as they find, use and organize appropriate learning resources. Teams also provides instructors a rich set of assessment tools that allow an instructor to gauge the individual contributions of each student and to track the evolution of the groups response during the problem solving process.

1.1.2 Teams is a course resource. Teams allows both instructors and students to collaboratively build a shared knowledge base associated with a course within Blackboard. By authoring content, linking to external sites and resources, sharing opinions and analysis, and constantly reworking and reorganizing existing content, students and instructors can build a relevant, up-to-date and living knowledge resource to accompany their course. While your Course Teams Site will be admittedly of a smaller scale, the power of this form of collaboration can best be seen in practice at Wikipedia (a free encyclopedia that is being written collaboratively by contributors from all around the world).

1.1.3 Teams is a dynamic content type. Unlike other forms of content in Blackboard that must be exported, edited locally and then re-imported, Teams allows instructors to create a form of course document that can be edited in place. By creating a Teams site in a course content area and setting the appropriate access properties, an instructor can create a course "document" that can be modified on the fly by simply accessing that document online.

1.1.4 Teams is a collaboration tool. Finally, Teams can be used as a collaboration tool within a course or organization. By combining aspects of a website authoring tool, a Wiki and a threaded discussion, Teams enables a more enduring form of collaboration. The Teams collaboration differs in that it provides an up-to-date synthesis of a group’s collaboration that helps focus the interaction into an end product.

But really, what you do with Teams is up to you.

1.2 Accessing Teams in Blackboard

There are a number of access points to Teams from within the Blackboard system. Most of these will be discussed more completely in the help sections for students, instructors, or administrators. What follows is a listing of the various Teams entry points.

1.2.1 Accessing the Course/Organization Teams Site

The Course/Organization Teams Site is a collaborative website that is associated with a course or organization and is accessed through the Course Tools list in Blackboard. To access the Course Teams site:

1. Go to the Courses tab in your portal.
2. Click on ‘Tools’.
3. Click on the ‘Teams Site’ link.

Figure 1.2.1 Accessing the Course/Organization Teams Site
1.2.2 Accessing Group Teams Site

Group Teams Sites are special Course/Organization documents or assignments that the instructor has set up in a course. These Teams Sites appear along side other course documents. To access these sites:

1. Go to the Courses tab in your portal.
2. Locate the appropriate content folder.
3. Click on the 'View' link.

Alternately, an instructor can access and create documents of these types through Blackboard's Course Control Panel.

1.2.3 Accessing Group Teams Site from the Portal Module

If your Blackboard administrator has enabled the Portal Module for Teams, there will be a second way of accessing Group Teams sites to which you have been assigned: Links to them will be made available directly on the "My Institution" tab as shown on the right.

Once you have accessed a Teams Site you will want to learn how to navigate the site and edit pages within the site. To read about this now, use the following links. This information is also covered in the section 'Using Teams as a Student'.

Viewing Teams Pages  Editing Teams Pages

1.2.4 Accessing Instructor Course Tools

Teams provides two course tools for instructors that are accessed in the control panel for a course. A description of these tools follows:

1. Teams Group Site Assessment Tool. The Teams Assessment Tool is both a way for instructors to measure individual contributions of each student, as well as a tool for tracking the evolution of their work.

2. Teams Course Site Configuration Tool. The Course Configuration Tool provides instructors a way to manage access and edit rights to the course's Teams Site.

For information on the Configuration, the Assessment Tool or on how to create a Teams Site, click one of the following links. This information is also covered in the section 'Using Teams as a Teacher'.

Configuring a Teams Course Site  Creating a Teams Group Site  Teams Group Site Assessment Tool
1.2.5 Accessing System Admin Tools

Finally, Teams provides the system administrator a tool for managing the Teams extension for a particular Blackboard installation. To access this tool, first go to the 'System Admin' tab and locate the 'Tools' list. Here you will find a link to the Teams admin tool.

Figure 1.2.v Accessing System Admin Tools
2. Using Teams as a Student

2.1 What is Teams?

Teams is a tool that allows you to collaboratively build websites within Blackboard. With Teams you can author content, link to external sites, upload images and share resources, while working together to build a group website. There are two kinds of Teams Sites that you will have the ability to access:

1. **Teams Course Sites.** With Teams installed, each course within Blackboard has a group website that all students in the course have access to. Based upon how your instructor has set up this site, you will be able to view and possibly edit the contents of the course site. A Teams Course Site is commonly used by your instructor to create a knowledge base or set of shared resources to supplement the course documents. If your instructor has enabled editing of the site then you will be able to contribute your own content and share your knowledge with the rest of your class.

2. **Teams Group Sites.** The second kind of Teams Site is a Teams Group Site. This kind of Teams Site is a lot like a group project or assignment where you present your results in the form of a website that you author with other students in the class. You will not see this kind of Teams Site unless your instructor has created an assignment for you using Teams.

More detail about viewing and editing Teams pages is available by clicking on the links below.

- [Viewing Teams Pages](#)
- [Editing Teams Pages](#)

2.2 Accessing Teams as a Student

### 2.2.1 Accessing the Course Teams Site

To access the Course Teams site:

1. Go to the Courses tab in your portal.
2. Click on 'Tools'.
3. Click on the 'Teams Site' link.

![Figure 2.2.i Accessing the Course Teams Site](image)

### 2.2.2 Accessing Group Teams Site

Group Teams Sites are special course documents that the instructor has set up in a course. To access these Teams Sites:

1. Go to the Courses tab in your portal.
2. Locate the appropriate content folder.
3. Click on the 'View' link.

![Figure 2.2.ii Accessing Group Teams Site](image)
2.2.3 Accessing Group Teams Site from the Portal Module

If your Blackboard administrator has enabled the Portal Module for Teams, there will be a second way of accessing Group Teams sites to which you have been assigned: Links to them will be made available directly on the "My Institution" tab as shown on the right.

<table>
<thead>
<tr>
<th>My Group Teams Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>80s Foreign Policy</strong></td>
</tr>
<tr>
<td><strong>80s Politics</strong></td>
</tr>
<tr>
<td><strong>American History: The 80s Course Site</strong></td>
</tr>
<tr>
<td><strong>Developer Course Site</strong></td>
</tr>
</tbody>
</table>

Figure 2.2.iii Portal Module

2.3 How to Use Teams?

As a student, once you have accessed a Teams Site, you will be primarily interested in how to navigate around the Teams pages and how to edit them. Navigating the Teams pages is just like navigating a website. You simply click on a link and you are taken to that page. In addition, there is a function that allows you to list all of the pages in a Teams Site that you can use. More detail about viewing and editing Teams pages is available by clicking on the links below.

- Viewing Teams Pages
- Editing Teams Pages
3. Viewing a Teams Page

3.1 Overview

This page describes the general structure and controls you will find while viewing a Teams page. When viewing a Teams page, you will find that it is broken up into four (4) elements:

![Elements of Teams View Page](image)

**Navigation Bar.** This page element provides quick links to aid navigation within Teams.

**Page Title.** In this area the name of the Teams page is shown. Note: the entry page in a Teams site is always called "Home".

**Action Bar.** This page element provides action buttons used to perform common Teams actions, like editing. A detail of the available actions can be found below. Note: If you do not have permissions to edit a Teams site, or if a Teams site is being presented as 'view only', then the Action Bar is hidden from you.

**Content Area.** The area directly below the Action Bar is where the content that you are creating is shown.

3.2 Teams View Actions

There are seven (7) actions available when viewing a Teams page as shown in the screenshot below:

![View Actions](image)

1. **Home.** This action will take you back to the home page of a Teams site from whatever page you are currently viewing.

2. **Refresh.** This action will refresh the current page you are viewing. This is especially useful if one of your group members is currently editing the page.

3. **Edit Page.** This action will put the page into edit mode so that you can make changes.

4. **New Page.** This action will create a new page within the Team site.

5. **Page History.** This action will provide a list of all prior versions of the page you are currently viewing. From this list you can revert to a prior version or view the differences between two versions. For more information click [Viewing Page History](#).

6. **Page List.** This action will pop up a simple navigational window that will list all pages in your Team site. Click on the page name to begin viewing that page. This feature is especially useful for pages that have been created, but not yet linked to.

7. **Delete Page.** This action will delete the page you are currently viewing. After clicking delete you will be asked to confirm your intention. Note: You can recover a deleted page at any time by viewing its page history. For more information on deleting and recovering pages, follow this link: [Deleting and Recovering Pages](#).
4. Editing a Teams Page

4.1 Overview

This page describes the controls you will need to use when editing a Teams page. There are three main elements of the edit page.

![Elements of Teams Edit Page](image)

Figure 4.1.i Elements of Teams Edit Page

1. **Editor Controls.** This area contains formatting and other controls for the editor.

2. **Editor Pane.** This is the actual area where edits are made.

3. **Save Controls.** This area contains the controls for saving your changes or exiting without saving.

4.2 The Editor Controls

The Teams editor has the same set of basic formatting controls as any standard WYSIWIG editor. These should be familiar to, for example, users of Microsoft Word. In addition, the Teams editor has two controls that require additional explanation. These are the Add Link and Add Image controls.

![Editor Controls](image)

Figure 4.2.i Editor Controls
4.2.1 Add Link - This control allows you to insert a link to either another Teams page, an external website, or an uploaded file into the page you are editing. Clicking on this control will bring up the Add Link Wizard, which will guide you through adding links of various types. To create a link, first select the text of the document you wish to make a link and then click the ‘Add Link’ button. The following types of links can be added:

- **Link to an existing page.** Use this option to create a link to another page within your Teams site.
- **Link to a new page.** Use this option to create a link to a new page you wish to create within your Teams site.
- **Link to an external website.** Use this option to link to a website at your institution or on the internet.
- **Link to a local file or image.** Use this option to first upload a file or image from your local machine and then link to it in your document.

4.2.2 Add Image - This control allows you to insert an image inline into your page. The Teams editor supports inserting two kinds of images:

- **Inserting an external image.** Use this option to insert an image that exists on another website. To do this, you will be asked to type in the address (i.e. the URL: "http://www.someplace.com/someimage.gif").
- **Inserting a local image.** Use this option to insert an image that resides on your local machine. You will be prompted to upload the image first, before it is inserted into the page.

4.3 The Editor Pane

The Editor Pane is the area that you can type into. It is also possible to cut and paste text and images from an HTML page or a word document into this area and then edit the inserted text. The Editor Pane works just like a standard editor with one important distinction. Underneath the covers, the document that you are creating is an actual HTML document. You can see the HTML that is produced by the Editor by using the Toggle Mode control. This feature, which should only be used by those who have a thorough understanding of HTML, can be used to provide finer control of the formatting of the resulting page than that possible by using the Editor controls alone.

4.4 The Save Controls

Finally, when you have made an edit you will want to save those edits so that others can see them. To do this use the Save button located at the bottom right of screen. You will want to save often in order to minimize the amount of work that can be potentially lost. If at any point you wish to stop editing and not commit your changes, simply click on the Cancel button.
5. Using Teams as an Instructor

Teams can be used in various ways by the instructor, but in order to get started you will need to know about the primary use of the two kinds of Teams Sites and how to set them up for your students:

1. **Teams Course Sites** With Teams installed, Teams Course Sites can be associated with each course within Blackboard. Teams Course Sites are an excellent way for you to set up a shared knowledge base of supplementary course materials while also maintaining the flexibility of being able to edit its contents online. Additionally, you can open up your Teams Course Site for student contribution.

2. **Teams Group Sites** Teams Group Sites are primarily used by an instructor to assign open-ended assignments or projects to groups of students. Students then present their work in the form of a project or assignment website that they author.

Before going through the details of how to set up these Team Sites, it might be worthwhile to first understand how students will see them. It is also a good idea to familiarize yourself with viewing, navigating and editing of Teams Sites in general. This information is available by clicking the following links:

- Using Teams as a Student
- Viewing Teams Pages
- Editing Teams Pages

### 5.1 Setting up a Teams Course Site

You set up a Teams Course Site through Blackboard’s course control panel. From the control panel, locate the ‘Configure Teams Site’ link. By default, your Teams Course Site has been set up so that only you will be able to edit it.

For information, click on the following:

- Configuring a Teams Course Site

### 5.2 Setting up a Teams Group Site

Teams Groups Sites are set up through Blackboard’s course control panel as well. From the control panel, you will want to click on the appropriate area ‘Assignments’ or ‘Course Documents’ in which to add the Site. We suggest setting up Teams Group Sites under ‘Assignments’ if this is how you intend to use them. You will want to set up one Teams Group Site per group involved in an assignment.

For information, click on the following: Creating a Teams Group Site

### 5.3 Using the Teams Assessment Tools

Finally, Teams provides a course tool to help instructors assess Group Project work. This tool allows an instructor to gauge the individual contributions of each student and to track the evolution of the groups response during the problem solving process. Access to this tool is through the course control panel as shown on the right.

For information, click on the following:

- Teams Assessment Tools

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Figure 5.1.i Accessing the Course Site Configuration Tool

Figure 5.5.i Accessing Team Site Assessment Tool
6. Teams Course Site Configuration Tool

6.1 Overview

Teams provides a course configuration tool to allow instructors to control access to the Course Teams Site. The Course Teams Site is a collaborative website that can be used to allow students and instructors to build a shared knowledge resource associated with a particular course. To access this tool, click on the ‘Configure Teams Site’ in the course control panel.

The Course Teams Configuration tool allows an instructor to control three important kinds of access to the Course Teams Site shown on the right.

1. **Student Editing**  With this option an instructor can allow students contribute to the Course Teams Site by granting them edit rights. By default student editing is disallowed.

2. **Edit Dates**  If student editing has been enabled, the instructor can further control access by specifying a start and/or stop date to the edits. By default there are no date restrictions placed on editing if it is enabled.

3. **View Dates**  An instructor can also set the dates for which students have access to view the Course Teams Site. By default there are no date restrictions placed on viewing.

---

**Teams Site Options**

1. **Do you want to allow students to edit the Teams Site?**
   - Yes
   - No

2. **Choose the dates and times for which students will be allowed to edit the Teams Site.**
   - Date and time fields

3. **Choose the dates and times for which the Teams Site can be viewed by students.**
   - Date and time fields

---

Figure 6.1.1 Accessing the Course Site Configuration Tool

Figure 6.2.1 Configuring the Course Teams Site
7. Creating a Teams Group Site

7.1 Overview

Teams Group Sites enable an instructor to create a collaborative group assignment within Blackboard. Instructors can use Teams Group Sites to assign a group of students an open ended assignment, such as researching some topic, presenting the results of a project, or a Problem Based Learning task. A Teams Group Site is created by adding a special kind of document to the 'Assignments' or 'Course Documents' area of a course. To do this, you will need to first access the course control panel, find the desired location in the documents area and then select ‘Create Teams Group Site’ and click ‘GO’.

7.2 Creating a Teams Group Site

Once you have accessed the 'Create Teams Group Site' page you will need to complete a number of steps to set up the Teams Site. They are described below.

7.2.1 Step 1: Group Site Information

In this step you need to provide some basic information about the Group Site you are setting up that will be displayed in various places such as the Course Documents Area

1. **Group Site Name**  
   Choose a name for your Teams Site.

2. **Description**  
   The description is the place to briefly describe or give instructions on the topic or assignment that is to be presented as a Teams Site.
7.2.2 Step 2: Selecting Group Members

In this step you need to assign the Teams Group Site to a set of users. You can do this by using the existing groups that have been set up within Blackboard, and/or you can create them on the fly just for the assignment. The users that are assigned in this step will be the only ones allowed to edit the Site's content (except instructors and administrators who always maintain edit rights within Teams).

Choose a Group You can assign the Group Site to one or more existing Blackboard groups by selecting them one at a time in the left-most select list and then clicking the right arrow button. This will place your selected groups in the select list labeled 'Selected Groups'.

Choose Individual Members In addition to, or in place of selecting Blackboard groups, you can assign individuals to the Teams Group Site in the same manner described above. Select the individual from the 'Course Members' select list and click the right arrow button.

7.2.3 Step 3: Controlling Access to the Teams Group Site

This step allows an instructor to control three important kinds of access to the Teams Group Site shown on the right.

Visibility With this option an instructor can control whether this content item is visible to others.

Edit Dates This option allows the instructor to specify the dates of the assignment, or more exactly the date range in which the assigned group members are allowed to edit the Site.

View Dates This option allows the instructor to specify the dates which this assignment is visible to non-group members. It can be used to allow groups to see each others work after an assignment is complete.
7.2.4 Step 4: Creating a Gradebook Item for the Site

This optional step presents the same set of gradebook options that are available through Blackboard's gradebook. This step allows an instructor to automatically create a gradebook item to correspond to the Teams Group Site being created and is useful when using a Teams Site as an assignment or group project.

![Create Grade Book Entry](image)

Figure 7.2.iv Creating a Gradebook Item
8. Teams Site Assessment Tool

8.1 Overview

Teams provides a course tool to help instructors assess group project work. The Teams Site Assessment Tool allows an instructor to gauge the individual contributions of each student and to track the evolution of the group’s response during the problem solving process. Access to this tool is through the course control panel as shown on the right.

8.2 Group Site Listing

The top level page of the Teams Assessment tool is a Group Site listing page. This page shows all the Teams Group Sites that have been assigned in the course and serves as a launching point for viewing details of a particular Group Site.

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Description</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socrates Teams Site</td>
<td>Each group member is tasked with adding content to the Socrates Web site should include the major issues discussed in class philosopher as well as the topics of each members’ term papers.</td>
<td>View Participation</td>
</tr>
<tr>
<td>The Definition of Life</td>
<td>A comparison and synthesis of different ideas about the nature of standpoint of complexity theory.</td>
<td>View Participation</td>
</tr>
</tbody>
</table>
8.3 Group Site Participation

To view a participation breakdown for all the students assigned to the Group Site click on the appropriate 'View Participation' button as shown above. This will bring you to a page that shows a detailed breakdown of the edits and page saves that have been performed while building the Teams Site.

<table>
<thead>
<tr>
<th>Name</th>
<th>User Name</th>
<th>Total Page Saves</th>
<th>Total Lines Modified</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>David, Daemian</td>
<td>daemian</td>
<td>38% (8/21)</td>
<td>43% (22/51)</td>
<td></td>
</tr>
<tr>
<td>Herbert, Tal</td>
<td>halbert</td>
<td>45% (10/21)</td>
<td>41% (21/51)</td>
<td></td>
</tr>
<tr>
<td>High, Karen</td>
<td>karen</td>
<td>0% (0/21)</td>
<td>0% (0/51)</td>
<td></td>
</tr>
<tr>
<td>Jean, Natalie</td>
<td>talie</td>
<td>0% (0/21)</td>
<td>0% (0/51)</td>
<td></td>
</tr>
<tr>
<td>Legal, Susan</td>
<td>sue</td>
<td>14% (3/21)</td>
<td>18% (6/51)</td>
<td></td>
</tr>
</tbody>
</table>

Figure 8.3.i Group Site Participation

The Group Site Participation page shows a breakdown per student of two metrics compiled across all of the pages in the Group Site, **Total Page Saves** and **Total Lines Modified**. These metrics can help an instructor gauge the level of a student’s participation within the entire site.

1. **Total Page Saves.** This metric shows the number of page saves that a particular student performed as a percentage of the total.
2. **Total Lines Modified.** This metric shows the number of lines modified by a particular student as a percentage of the total.

Please note that these metrics are not a perfect measure of a student's participation and are not intended to directly correlate to a participation 'grade'. However, taken together with information from the Page Diff Tool (described below) and an assessment of the quality of the work, they should help to paint a clearer picture of a student's participation.
8.4 Group Site Participation Detail

By clicking on the 'View Detail' button, you can drill down to view a participation breakdown per page in the Team Site. An example follows:

![Participation Detail](image)

The Group Site Participation Detail page shows two metrics for a particular student broken down per Group Site page, **Total Page Saves** and **Total Lines Modified**. These metrics can help an instructor gauge the level of a student's participation for a particular page in a Group Site.

1. **Total Page Saves.** This metric shows the number of page saves that a particular student performed as a percentage of the total saves for that page.

2. **Total Lines Modified.** This metric shows the number of lines modified by a particular student as a percentage of the total lines modified for that page.

By following the 'See Change History' link, an instructor can track the changes made as the page has evolved to its current state. For more information on this feature, see the section on **Viewing Page History**.
9. Viewing Page History

9.1 Overview

Whenever an page is saved within Teams, a record of those changes is preserved in the form of a set of page revisions. These revisions make three important Teams' features possible:

- The ability to revert the current view of a page to any prior revision.
- The ability to track changes to pages as the content evolves.
- The ability to recover a deleted page.

This section will describe those features.

Viewing page history can be accessed from within Teams from two places.

- From the Action Bar while viewing a page.
- From the Participation Detail screen in the instructor Assessment Tool.

9.2 Page History Revision List

The Page History screen shows a list of all of the revisions of a given page, from the original version (version 0) to the latest version. There are four noteworthy elements of this page.

1. The user name of the person who edited the page.
2. The date of the edit.
3. The version number.
4. A link to the Version Diff Tool which compares this version with the previous one. For more details on the Diff Tool see Using the Diff Tool and Recovering a Prior Version.
9.3 Using the Version Diff Tool

The Version Diff Tool allows you to compare a version of a page with its prior version with the differences highlighted for you. The following figure shows a comparison of two versions with a number of important page elements indicated.

![Version Diff Tool Figure](image)

1. **Version Information.** This area shows information about the version you are currently viewing.

2. **Navigation Controls.** The buttons in this area allow you to navigate forward and backward through the version comparisons.

3. **Revert Button.** This button, available only while you are viewing a Teams page, allows you to revert the active view to the version you are viewing. This is useful if you wish to undo someones edits or when recovering a deleted page. For more information see Recovering a Prior Version.

4. **An Addition.** Text that has been added to this version from the previous version is highlighted in green.

5. **A Deletion** Deleted text is highlighted in red with a strike through.

6. **A Modification** Text that has been modified is highlighted in yellow.

Please note, the Learning Objects team is currently working to improve the Version Diff Tool. You will on occasion see highlighting that appears in error - a deletion highlighted as a modification, for example. This is due to the underlying diff algorithm being used. We hope to offer an improvement soon.
10. Deleting and Recovering Pages

10.1 Overview

This section describes what happens when a page within Teams is deleted. It also describes the steps that can be taken to recover a prior version of a page.

10.2 Deleting a Teams Page

Deleting a page within Teams involves the following steps.

1. **Delete Button.** The delete button is always available in the Action Bar while viewing a Teams Page.
2. **Confirmation Page.** After clicking on the delete button you are taken to a confirmation page. Clicking 'NO' will bring you back to the view page.
3. **Deleted View.** When you delete a page, the existing text is deleted and is replaced with a message about when and who deleted the page.

10.3 What Happens to a Deleted Page?

When a page is deleted it is saved as a page revision, just like any other save of the page. As a result it is still available in the Page List and Page History screen and thus can be recovered at any time. See Recovering a Prior Version below.

10.4 Recovering a Prior Version

Any version of a Teams page can be recovered at any time, including a page that has been deleted, by viewing its Page History and navigating through the past versions. See Viewing Page History if you have not already done so.

Once you have located the version you wish to recover from, click the 'Revert' button as shown on the right. The page version you have selected has now become the latest version and its page history has been appropriately updated.
Appendix A. Principles of Wiki

An explanation of some of the principles of Wiki is found below. Teams is roughly based on these ideas (... of course we threw in a few features of our own making that we think makes Teams more useful in an instructional setting). We have included this page because we want you to know the point of view that was taken as Teams was being built. Thank you for using our software.

- The Teams team

The following was borrowed from http://doc.tikiwiki.org/tiki-index.php?page=Wiki.

In brief, a Wiki is a computer-based collaboration system based on three major principles:

1. **Ease of Use** Users shouldn't have to learn HTML or deal with complicated file upload/download protocols, and the inevitable file format incompatibilities, in order to create and maintain documents collaboratively. Typically, wikis solve these problems by using their own, easy formatting syntax (called wiki syntax) and by enabling users to create and maintain documents with a Web browser.

2. **Wide-Open Read/Write Access** If the purpose of a wiki is wide-open collaboration, then every document in the wiki should be instantly available for editing and revision -- and what's more, anyone should be able to edit an existing wiki document (or create a new one) without having to get permission from authors or supervisors.

3. **Emergent Structure** In physics and biology, the term emergent structure is used to describe the striking (and often beautiful) patterns that emerge from fundamentally chaotic processes, such as the spiral arms of our galaxy. In a Wiki, this term refers to the navigation structures that Wiki users invent as they try to impose pattern and meaning on a collection of Wiki pages.