Title: The Wiki: An Environment for Scholarly Conversation and Publishing (IT tools for Science)

Date: Sep 09, 2008 06:00 PM

URL: http://pirsa.org/08090056

Abstract: "The Medium Is The Message ... The Audience Is The Content", Marshall McLuhan, Understanding Media: The Extensions of Man, New York: McGraw-Hill, 1964. A wiki is a collaborative space because of its total freedom, ease of access, and use, and simple and uniform navigational conventions. It is also a way to organize and cross-link knowledge, Ward Cunningham, Father of The Wiki (Leuf and Cunningham, 2001, 16). Most wikis provide the user with a set of navigation or utility tools such as the ability to create and edit a page, view recently changed pages, and rollback to previous page versions. In addition, many wikis include a discussion forum for proposed page changes. Among its many perceived benefits are its potential for facilitating a more creative environment and expanding knowledgebase, and a significant ability to harness the power of diverse point-of-views in creating collaborative works. In this presentation, we will speculate on the Wiki as a digital environment that not only supports current scholarly practices, but more importantly, offers a framework for their enhancement and transformation.
The Wiki: An Environment For Scholarly Conversation And Publishing

Gerry McKiernan
Science and Technology Librarian
Iowa State University Library
Ames, Iowa
USA

http://www.public.iastate.edu/~gerrymck/Science21StCentury2008.ppt
Science in the 21st Century

WHAT
- Science, Society, and Information Technology

WHERE
- The Perimeter Institute, Waterloo, Canada

WHEN
- September 9 2008 | 18:00 – 18:20 |

http://www.science21stcentury.org/
DISCLAIMER (1)

The screen prints selected for this presentation are for educational purposes. Their inclusion does not constitute an endorsement of an associated product, service, place, or institution.
DISCLAIMER (2)

The views and opinions expressed in this presentation are those of the presenter and do not constitute an endorsement by Iowa State University or its Library.
! THANK YOU!

- Sabine Hossenfelder, Perimeter Institute
- Michael Nielsen, Perimeter Institute
"The basic [idea] of the Web is that [it is] an information space through which people can [not only] communicate [in general], but communicate in a special way: communicate by sharing their knowledge in a pool."
The idea was not just that it should be a big browsing medium. The idea was that everybody would be putting their ideas in, as well as taking them out.”

Tim Berners-Lee
Father of the Web

http://www.w3.org/1999/04/13-tbl.html
Table of Contents (1)

- Wikis
  - Definition
  - Features and functionalities
  - Advantages / Disadvantages
- Scholarly Conversation and Publishing
Wiki (1)

“A wiki is a freely-expandable collection of interlinked Web 'pages', a hypertext system for storing and modifying information - a database, where each page is easily editable by any user ... .”

(Leuf and Cunningham 2001, 14)
Wiki (2)

“Wiki is a ... collaborative space ... because of its total freedom, ease of access, and use, [and] simple and uniform navigational conventions ... .”

“[It] ... is also a way to organize and cross-link knowledge ... .”

Ward Cunningham
Father of the Wiki

(Leuf and Cunningham 2001, 16)
Features and Functionalities (1)

Most wikis provide the user with a set of navigation or utility tools such as:

- Ability to edit a page
- View recently changes pages
- ‘History’ feature to view or roll back to a previous version of a page

(Peterson 2004, 14)
Features and Functionalities (2)

- ‘Discuss’ offline changes or proposed changes to a page
- A ‘backlinks’ function (view all the pages that link to the page currently displayed)
- Search function

(Peterson 2004, 14)
Features and Functionalities (3)

- Most public wikis do not generally require that readers register.
- Additions or modifications made by readers typically are not reviewed prior to publication within a wiki.

(\texttt{en.wikipedia.org/wiki/Wiki})
Wiki Advantages (1)

- Asynchronous benefit of incorporating the assistance of experts, peers and other professionals
- Excellent means to annotate evolving issues where spare notes, thoughts, and a meandering collection of file formats exist
- Facilitate the exchange of ideas for small group projects
- Provides for a more creative environment and expanding knowledgebase in project management
Wiki Advantages (2)

- Level the playing field and allow all opinions to be heard
- Increase communication efficiency and productivity over ‘back-and-forth’ exchanges of e-mail attachments and discussion boards
- Provide a way to get everyone on the same page through the writable Web
- Harness the power of diverse individuals to create collaborative works
Wiki Advantages (3)

Wikis have the potential to

- provide individuals with a forum for improving knowledge and advancing thought processes
- form collaborative social research communities with respect to project management, and
- provide innovative reference repositories for all aspects of planning, operation, and implementation

(Bean and Hott 2005, 8)
Wiki Advantages (4)

Wikis Have the Potential and Power to Change How We Think About How We Live and Work.

(Bean and Hott 2005, 6-7)
Cited Works


Scholarly Conversation And Publishing
Conversational Technologies (1)

- Discussion forums, wikis, and weblogs
- Knowledge creation and sharing is carried out through a process of discussion with questions and answers (discussion forum), collaborative editing (wikis), or through the process of storytelling (weblogs)
- Conversational systems capture and represent conversations and accommodates contextualization, search, and community
- Offer ease and efficiency of representation and sharing

Conversational Technologies (2)

- "The wiki ... has as its basic information unit the Comment-on-Topic.
- Neither time nor user are relevant (for information presentation), and the information unit in its most updated form represents the best and most timely version of thoughts on that topic.
- Wikis thus permit incremental improvement of an information unit."


Disruptive Scholarship

In view of its collaborative features and functionalities, and the nature and character of alternative methods of quality management outlined, the Wiki environment could provide an outstanding framework for

* PREPARING
* EDITING
* REVIEWING
* ASSESSING
* PUBLISHING

for a range of scholarly work, including manuscripts, articles, journals, and monographs.
Disruptive Scholarship

In view of its collaborative features and functionalities, and the nature and character of alternative methods of quality management outlined, the Wiki environment could provide an outstanding framework for

* PREPARING
* EDITING
* REVIEWING
* ASSESSING
* PUBLISHING

for a range of scholarly work, including manuscripts, articles, journals, and monographs.
Disruptive Scholarship

In view of its collaborative features and functionalities, and the nature and character of alternative methods of quality management outlined, the Wiki environment could provide an outstanding framework for

* PREPARING
* EDITING
* REVIEWING
* ASSESSING
* PUBLISHING

for a range of scholarly work, including manuscripts, articles, journals, and monographs.
Disruptive Scholarship Model
## Disruptive Scholarship Model

<table>
<thead>
<tr>
<th>COMPOSE</th>
<th>REVIEW</th>
<th>EDIT</th>
<th>REVISE</th>
<th>PUBLISH</th>
</tr>
</thead>
<tbody>
<tr>
<td>REVIEW</td>
<td>EDIT</td>
<td>REVISE</td>
<td>PUBLISH</td>
<td>COMPOSE</td>
</tr>
<tr>
<td>EDIT</td>
<td>REVISE</td>
<td>PUBLISH</td>
<td>COMPOSE</td>
<td>REVIEW</td>
</tr>
<tr>
<td>REVISE</td>
<td>PUBLISH</td>
<td>COMPOSE</td>
<td>REVIEW</td>
<td>EDIT</td>
</tr>
<tr>
<td>COMPOSE</td>
<td>REVIEW</td>
<td>EDIT</td>
<td>REVISE</td>
<td>PUBLISH</td>
</tr>
<tr>
<td>REVIEW</td>
<td>EDIT</td>
<td>REVISE</td>
<td>PUBLISH</td>
<td>COMPOSE</td>
</tr>
<tr>
<td>EDIT</td>
<td>REVISE</td>
<td>PUBLISH</td>
<td>COMPOSE</td>
<td>REVIEW</td>
</tr>
<tr>
<td>REVISE</td>
<td>PUBLISH</td>
<td>COMPOSE</td>
<td>REVIEW</td>
<td>EDIT</td>
</tr>
</tbody>
</table>
Wikis for scientific publishing

1 Wikis for scientific publishing
   1.1 Abstract
   1.2 Presentation slides - Nine observations and ideas around an ongoing paradigm shift =
      1.2.1 A new idea?
         1.2.1.1 First of all: Internet media will initiate a revolution in scientific publishing - a new thesis?
         1.2.1.2 Not at all!
      1.2.2 What does scientific publishing look like today?
         1.2.2.1 Role of commercial scientific publishers
         1.2.2.2 Situation today:
            1.2.2.3 Scholars + their institutions
         1.2.2.3 The Open-Access-Movement (OA)
            1.2.3.1 Two main starting points of the Open-Access-Movement...
            1.2.3.2...two main objectives...
            1.2.3.3...two – perhaps slightly varying – motivations...

http://en.wikibooks.org/wiki/Wikimania05/Paper-LH1
Mememoir: The Radical Scientific Wiki Engine

http://www.mememoir.org/
- Reporting in *Nature Genetics*, scientist Robert Hoffmann develops the first Wiki where authorship really matters.

- Based on a powerful authorship tracking technology, this next generation wiki links every word to its corresponding author.

- This way readers can always know their sources and authors receive due credit.
Apart from being an important guidance to the reader, authorship is often key to a successful academic and professional career.

Authorship provides an important basis to establish priority of ideas and discoveries and to build a reputation among peers. "It is only fair to duly acknowledge authors, who invest time and knowledge in their contributions," Hoffmann says in his article.
Clear authorship attribution in this next generation wiki makes it also possible that users can rate each other based on their contributions.

For the first time, collaborative publishing can therefore be enhanced with the advantages of a reputation system. Hoffmann describes how a self-regulating reputation system can help to settle editing conflicts, ...
"This release is an important proof of principle, but our ambitious aim with the Mememoir project is to revolutionize publishing in all of science," says Dr. Hoffmann,

"with a knowledge base that is open access, interdisciplinary and combines the altruistic possibilities of wikis with explicit authorship."
The scientific wiki project, introduced in the September issue of *Nature Genetics* and released online today, is the first of its kind and a milestone in the Mememoir project.

The first scientific wiki system of the Mememoir project has been released online today at WikiGenes.  

http://www.wikigenes.org/
Robert Hoffman
A Wiki for the Life Sciences Where Authorship Matters

*Nature Genetics* / volume 40 / number 9 / 1047 - 1051 / September 2008 / Published online 27 August 2008 / doi:10.1038/ng.f.217
Scholarship 2.0: An Idea Whose Time Has Come

Scholarship 2.0 is devoted to describing and documenting the forms, facets, and features of alternative Web-based scholarly publishing philosophies and practices. The variety of old and new metrics available for assessing the impact, significance, and value of Web-based scholarship is of particular interest.

FRIDAY, SEPTEMBER 5, 2008

LiveScience: Era of Scientific Secrecy Near End

Era of Scientific Secrecy Near End / By Robin Lloyd,
LiveScience Senior Editor / posted: 02 September 2008 11:30 am ET

Secrecy and competition to achieve breakthroughs have been part of scientific culture for centuries, but the latest Internet advances are forcing a tortured openness throughout the halls of science and raising questions about how research will be done in the future.

The openness at the technological and cultural heart of the

http://scholarship20.blogspot.com/
“The Medium is the Message,
... the Audience is the Content.”

Marshall McLuhan

[source]
http://www.marshallmcluhan.com/
“Hot media are ... low in participation,
Cool media are high in participation or completion by the audience.”

Marshall McLuhan
Understanding Media: The Extensions of Man.
"We become what we behold. We shape our tools and thereafter our tools shape us."

Marshall McLuhan

*Understanding Media (1964)*

http://www.brainyquote.com/quotes/quotes/m/marshallmc141113.html/
! THANK YOU!

FOR YOUR ATTENTION
FINAL

09-09-08

9:09