

# Design Principles of Wiki: How can so little do so much?

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*Ward Cunningham*  
*c2.com/doc/wikisym*

© 2006

# Wiki Defined

---

*11 words*

The screenshot shows a web browser window titled "wiki - Search Results - MSN Encarta". The address bar contains the URL "http://encarta.msn.com/encnet/refpages/search.aspx?q=" and the search engine is set to "encarta". The MSN Encarta logo is visible at the top left, and navigation links like "Home", "Encyclopedia", "Dictionary", etc., are at the top. The search bar contains the word "wiki" and a "Go" button. Below the search bar, there is a section for "Searched for 'wiki'" with a sub-section for "Articles". The main article for "Wiki" is displayed, with the text "server software allowing users to modify web pages, Open Source Software". To the right of the article, there are three columns of educational resources: "K-12 Success" (K-5 Parents, Homework Help, Test Prep, Fun Quizzes), "College-Grad" (College Prep, 2006 Rankings, Grad & Biz, Financial Aid), and "Adult Learning" (Online Degrees, Career Schools, Continuing Ed, Free Classes). Below these is an advertisement for "Online Bachelor's and Master's Degrees for Working Professionals" with a list of subjects: Accounting (2), Business Administration (7), Criminal Justice (1), Education (5), Information Technology (2), and Nursing (2). A "Learn more" button is present. At the bottom, there are sections for "More Links from Our Advertisers" (SAT Prep, Distance Learning, Education Online, Tutoring, Online MBA, Textbook) and "Search Results Feedback" (How well did we match your search).

75 of 496  
words

The screenshot shows a web browser window with the URL <http://www.britannica.com/eb/article-9404276>. The page features a top navigation bar with the Britannica logo and 'online' text, along with links for 'Already a member?' and 'LOGIN'. Below this is a search bar and a 'Browse' section with links for 'SUBJECTS', 'A TO Z', and 'THE INDEX'. The main content area displays the article for 'wiki', including a table of contents, a 'Print this Table of Contents' link, and a 'Britannica Store' advertisement for a 'Historical Atlas of the Islamic World'. The article text describes the World Wide Web (WWW) and mentions that Wikis can be dated to 1995. A green button offers a 'FREE Trial' for the full article. The page also includes an 'Ads by Google' section with advertisements for 'CustomerVision BizWiki', 'Mambo Ringtone', and 'Enterprise Wiki'. A sidebar on the right promotes 'Answer that BURNING QUESTION NOW with unlimited, FREE ACCESS to Britannica Online...' and lists benefits for members, such as access to Britannica articles, student articles, images, magazine articles, and concise articles.

Get health care that's anything but expected  
click here  
KAISER PERMANENTE. thrive

ENCYCLOPÆDIA BRITANNICA online  
Sharing knowledge since 1768  
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Search Britannica Online GO Browse SUBJECTS A TO Z THE INDEX

Content Related to this Topic  
Main Article  
Related Articles .....1  
Subject Browse

This Article's Table of Contents  
• wiki  
Print this Table of Contents

ENCYCLOPÆDIA Britannica Store  
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HISTORICAL ATLAS OF THE ISLAMIC WORLD  
A fascinating study of Islam's dynamic history.  
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wiki  
Encyclopædia Britannica Article  
Page 1 of 1  
PRINT PAGE • PRINT ARTICLE • E-MAIL ARTICLE • CITE ARTICLE

World Wide Web (WWW) site that can be modified or contributed to by users. Wikis can be dated to 1995, when American computer programmer Ward Cunningham created a new collaborative technology for organizing information on Web sites. Using a Hawaiian term meaning "quick," he called this new software WikiWikiWeb, attracted by its alliteration and also by its matching abbreviation...

wiki... (75 of 496 words)

Get the full article with a FREE Trial

ADVERTISEMENT

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CustomerVision BizWiki  
Real-time collaboration solution. Simple for any business user.  
[www.customervision.com](http://www.customervision.com)

Mambo Ringtone  
Get This Ringtone on Your Phone. No Charge - Don't Pay - Get it Now!  
Blinko.com

Enterprise Wiki  
Simple Deployment, Fast Results Get a Free Wiki Trial Now!  
[www.eTouch.net](http://www.eTouch.net)

Encyclopædia Britannica  
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	▶ Images, video and media
	▶ Magazine articles
	▶ Web sites
	▶ Concise articles

Subscribe to unlock this content today!

3271  
words

The image shows a screenshot of the Wikipedia article for "Wiki". The browser window title is "Wiki - Wikipedia, the free encyclopedia" and the address bar shows "http://en.wikipedia.org/wiki/Wiki". The article content includes a definition of a wiki, its history, and a table of contents. A callout bubble points to the text "The Chance RT-52 is a small bus measuring only 25' 11" long. It is primarily used as shuttle bus and normally carries 19 passengers." in the article text.

Wiki - Wikipedia, the free encyclopedia

http://en.wikipedia.org/wiki/Wiki

Sign in / create account

article discussion edit this page history

Your continued donations keep Wikipedia running!

## Wiki

From Wikipedia, the free encyclopedia

*For other uses, see [Wiki \(disambiguation\)](#).*

A **wiki** (IPA: [ <sup>ˈ</sup> wɪ.kiː ] <WICK-ee> or [ <sup>ˈ</sup> wiː .kiː ] <WEE-kee><sup>[1]</sup>) is a type of [website](#) that allows users to easily add, remove, or otherwise [edit](#) and change some available content, sometimes without the need for registration. This ease of interaction and operation makes a wiki an effective tool for [collaborative authoring](#). The term wiki can also refer to the [collaborative software](#) itself (wiki engine) that facilitates the operation of such a website (see *wiki software*), or to certain specific wiki sites, including the computer science site (and original wiki), [WikiWikiWeb](#), and the online encyclopedias such as [Wikipedia](#). The first wiki, [WikiWikiWeb](#), is named after the "Wiki Wiki" line of [Chance RT-52](#) buses in [Honolulu International Airport](#), [Hawaii](#). It was created in 1994 and installed on the web in 1995 by [Ward Cunningham](#) and [Larry Green](#) of the [Portland Pattern Repository](#). "Wiki-wiki" means "hurry quick" in [Hawaiian](#) and refers to the islands.

**Contents** [hide]

- History
  - 1.1 Development of Wiki
- Typical site operations
- Key characteristics
  - 3.1 Pages and editing
    - 3.1.1 A Markup Standard
  - 3.2 Linking and creating pages
  - 3.3 Searching
  - 3.4 Server-side versus client-side wiki
- Controlling changes
- Vandalism
- Wiki communities
- Wikis and Content Management Systems
- Notes
- References

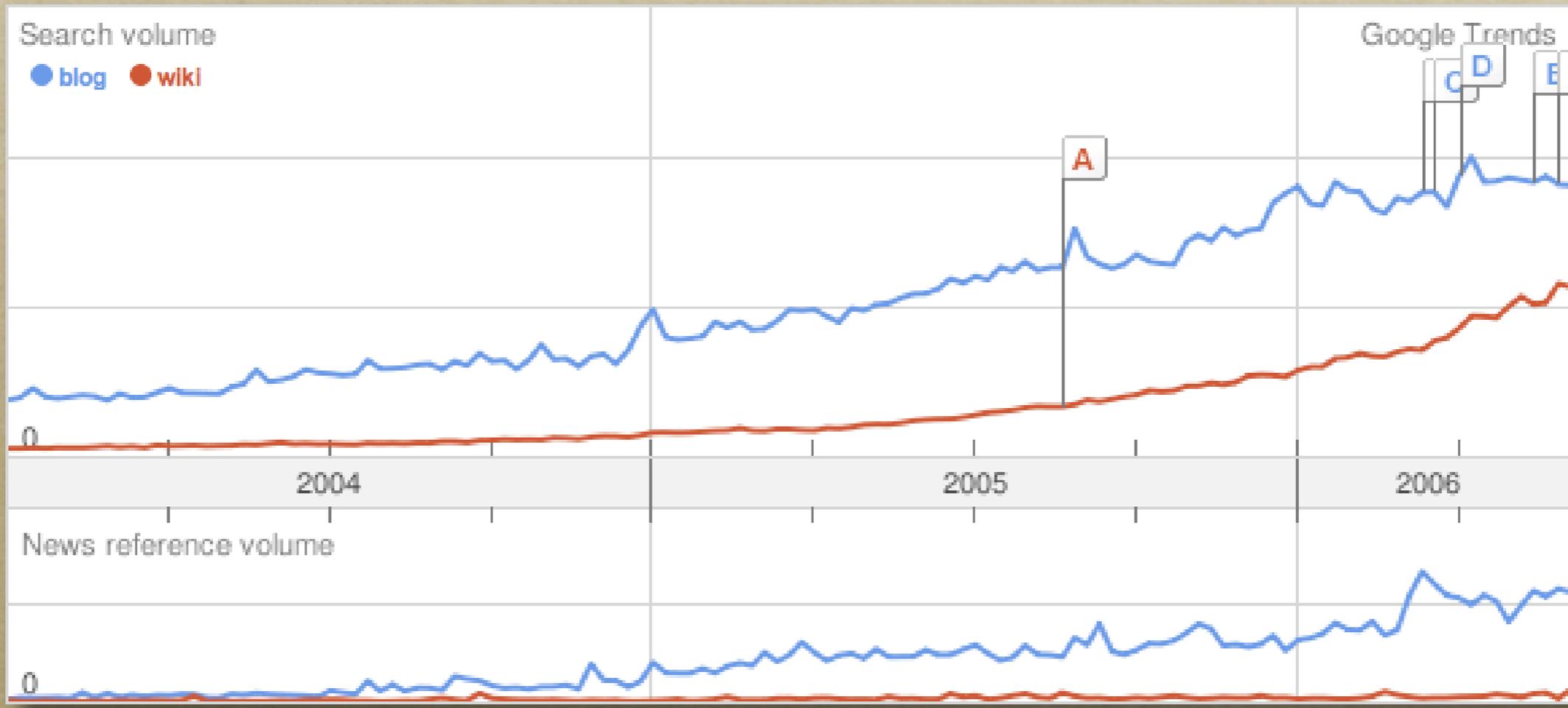
Done

# Wiki vs. Blogs

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*A wiki is a work made by a community.  
The blogosphere is a community made by its works.*

*(Wikizens can come and go without  
changing a wiki's identity)*

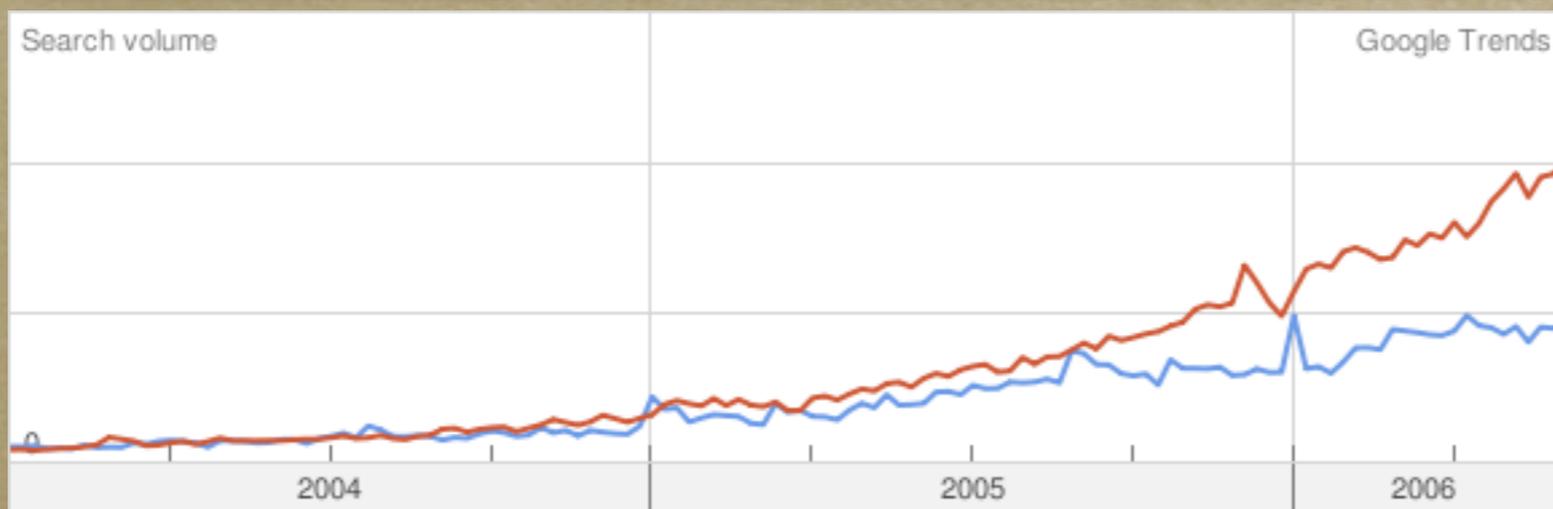




*Denmark*



*Japan*



*Germany*

WelcomeVisitors

← → ↻ × 🏠 <http://web.archive.org/web/199611> ↻ G



## WelcomeVisitors

These pages are part of the [PortlandPatternRepository](#). They contain an incomplete and casually written history of programming ideas. It's a group project. It's an experiment. It's also fun. Please participate. Try it now!

You'll see three different kinds of links here...

- [PortlandPatternRepository](#) is a page in this section.
- [Portland Pattern Repository \[1\]](#) links to another web server.
- [PrincetonPatternReflectory?](#) is a page waiting to be written.

The last one leads to an input form that asks you to describe Princeton's Reflectory (don't, or you'll wreck this example.) You get the same form for an existing page when you follow [EditText](#) near its bottom. You can read [MoreAboutMechanics](#) if you have questions.

These pages are about [PeopleProjectsAndPatterns](#). Please read this before you go on. Then have a look at various [StartingPoints](#). Before you leave, try your hand at editing by adding your name to our list of [RecentVisitors](#). For those of you infatuated with novelties, try [RecentChanges](#).

Please do not edit this page.

---

[EditText](#) of this page (last edited November 8, 1996)  
[FindPage](#) by browsing or searching





Count is 32027 pages in 222 megabytes.  
Average page size 6947 bytes.  
Average growth rate 11 pages per day.  
Growth rate last week 5 pages per day.  
Recorded period 2442 days (348 weeks).  
Last data recorded 3 days ago.

*Agile development corrects  
dysfunctional behavior  
resulting from decades  
of misunderstood risk.*

Hillside.net - PLoP

http://www.hillside.net/conferences/plop.htm

A group dedicated to improving the quality of software development

SEARCH site

# PLoP

Pattern Languages of Programs

Pattern Languages of Programming / authors to have their pattern language criticism is offered in the form of writing participants to improve their pattern

There is no guaranteed publication PLoP. In the past, selected papers Design (PLOPD) series. Each paper pool that will be used to draw

- Home
- Program
- Tutorials
- Research papers
- Workshops
- Open space results
- Keynote Speakers
- Organization
- Program Committee
- Past Conferences
- Submission details
- Registration

XP2006

http://virtual.vtt.fi/virtual/xp2006/

## WELCOME TO XP2006

The 7th International Conference on eXtreme Programming and Agile Processes in Software Engineering  
June 17 - 22, 2006, Oulu, Finland

[Photos from the conference](#)

[Keynote slides are available](#)

The XP2006 conference proceedings will be published in the Springer Lecture Notes in Computer Science ([Springer LNCS](#))

Agile software development methods and solutions software industry in recent years. The many quality gains including increased satisfaction. Agile innovation embedded development

July 23-28

# AGILE 2006 International Conference

Minneapolis, Minnesota, USA

**AGILE 2005 WAS A SELL OUT!**  
Plan to reserve early to attend this year.

Register Now!

WELCOME

CONFERENCE PROGRAM

- Program Overview
- Program Details
- Session Abstracts

LEADERSHIP SUMMIT

EDUCATORS' SYMPOSIUM

OPENSOURCE

SPONSORSHIP PACKET

CONFERENCE SPONSORS

EVENT ORGANIZERS

CONFERENCE WIKI

CONFERENCE FEEDBACK FORM

Conference presented by:

Agile Alliance

**IMPORTANT DATES**

- 23rd July, 2006  
Conference starts!
- Wednesday, July 26th  
Agile Leadership Summit  
All Day
- Thursday, July 27th  
Agile Educators' Symposium  
All Day
- Wednesday, July 26th 2006  
Google  
Google Nights  
6:30 - 9:00, Nicolet Ballroom

**Banquet Speaker, July 27th**

Greg Harbaugh  
"Engineering outside the box."  
Former Astronaut and veteran of 4 Space Shuttle flights.

**Opening Keynote, July 24th**

Peter Coffey  
Technology Editor, eWeek Magazine

**Sponsors and Exhibitors**

Google

RALLY software development

valtech

http://www.wikisym.org/

## WikiSym 2006

2006 International Symposium on Wikis  
August 21-23, 2006, Odense, Denmark  
Co-located with **ACM Hypertext 2006**  
Sponsored by **ACM SIGWEB**  
See <http://www.wikisym.org/ws2006>  
Archival • Peer Reviewed • ACM Sponsored

### LATEST NEWS

- July 9, 2006: We made the **How and Why Wikipedia** online.
- July 7, 2006: We would like to thank **WikiMatrix** advertisements!
- June 26, 2006: New **wiki research** available
- June 14, 2006: Please register here
- June 7, 2006: WikiSym sub
- April 24, 2006: WikiSym sub
- March 2006: Main Page - Wikimania
- February 2006: Main Page - Wikimania

Log in / create account

http://wikimania2006.wikimedia.org/wiki/Main\_Page

## WIKIMANIA 2006

The International Wikimedia Conference

August 4 - 6  
Cambridge, Massachusetts, USA

about wikimania

- Registration check-in
- General information
- For attendees
- For press
- For volunteers
- FAQ
- Blog

program and events

- Participate online
- Schedule
- Events
- Program
- Presentations, Panels, and Workshops
- Proceedings

navigation

- Main Page
- Recent changes
- Contact us

search

Go Search

toolbox

**Welcome to the site of the 2nd annual Wikimedia conference.**  
View the finalists in writing and media for the 2006 Wikimania Awards!

Wikimania 2006, the second annual international Wikimedia conference, was held August 4-6 in Cambridge, Massachusetts, hosted by the Berkman Center for Internet & Society at the Harvard Law School campus. Both a scientific conference and a community event, Wikimania brought together members of the various Wikimedia projects in order to exchange ideas, build relationships, and report on research and project efforts. It also provided an opportunity for Wikimedians and the general public alike to meet and share ideas about free and open source software, free knowledge initiatives, and wiki projects worldwide.

We thank you all, speakers, attendees, people who helped the conference ... all of you who showed an interest to realize this event. See you again at the next conference, which you might now want to have in your own city ... [More about Wikimania](#)...

**Post-conference**

- Please leave your [comments](#) so that the next Wikimania can be even better.

*Agile*

*Wiki*

*Open*

*Correction*

*Risk*

*Knowledge*

*Property*

*Barrier*

*Plan*

*Privilege*

*License*

*Team*

*Location*

*Attention*

*Merit*

*Serves*

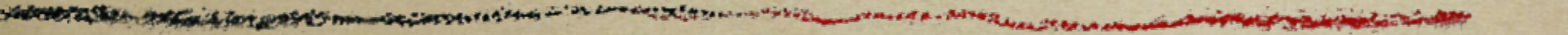
*Customer*

*Reader*

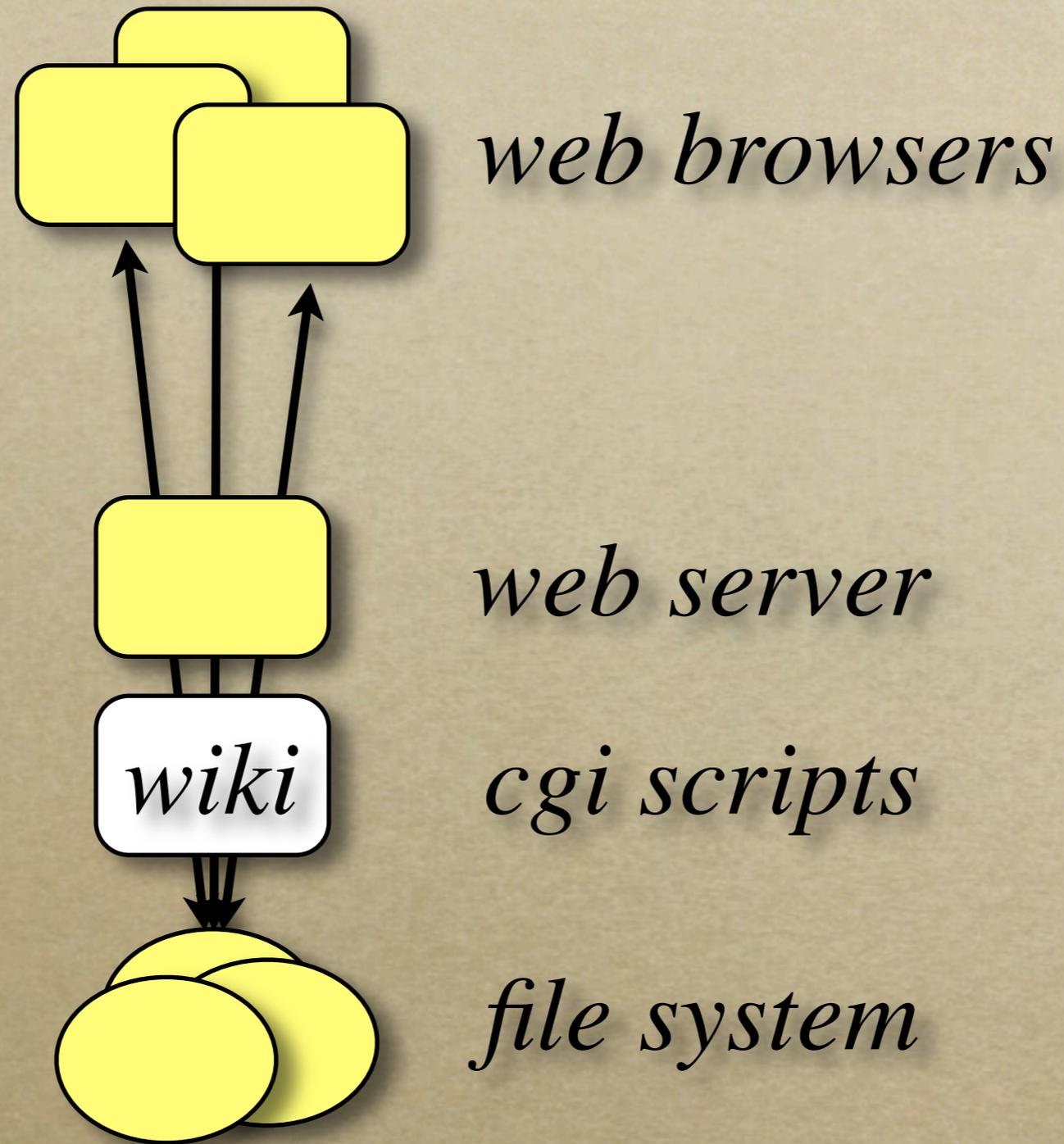
*Developer*

	<i>Risk</i>	<i>Knowledge</i>	<i>Property</i>
<i>Barrier</i>	<i>Plan</i>	<i>Privilege</i>	<i>License</i>
<i>Team</i>	<i>Location</i>	<i>Attention</i>	<i>Merit</i>
<i>Serves</i>	<i>Customer</i>	<i>Reader</i>	<i>Developer</i>

So Much for So Little



<b>SigWik</b>	4 lines, 222 chars of Perl.
<b>FleaWi</b>	4 lines, 228 chars of Perl.
<b>NanoWiki</b>	5 lines, 295 chars of Perl.
<b>PeeWee</b>	7 lines, 444 chars of Perl.
<b>PeWi</b>	7 lines, 515 chars of Perl.
<b>WyPy</b>	11 lines, 814 chars of Python.
<b>MuWiki</b>	15 lines of PHP.
<b>WjKj</b>	16 lines, 1,212 chars of Java
<b>WyRiki</b>	20 lines, 1,361 chars of Ruby
<b>TinyWiki</b>	28 lines of Perl.
<b>Qiki</b>	32 lines of Python.
<b>FinikiWiki</b>	38 lines of Perl.
<b>RikiWiki</b>	40 lines of Ruby.



```
#!/usr/bin/perl
```

```
use CGI ':all';
```

```
path_info =~ /\w+\/;
```

```
$_ = `grep -l $& *`.h1($&).escapeHTML$t=param(t) || `dd<$&`;
```

```
open F, ">$&";
```

```
print F$t;
```

```
s/htt\S+I([A-Z]\w+){2,}/a{href,$&},$&/eg;
```

```
print header, pre "$_<form>", submit, textarea t,$t,9,70
```

```
-- Casey West
```

*see this run*

# Wiki Design Principles

---

*Open, Incremental, Organic,  
Mundane, Universal, Overt,  
Unified, Precise, Tolerant,  
Observable, Convergent.*

# Open Principle

---

*Should a page be found to be incomplete or poorly organized, any reader can edit it as they see fit.*

*(also permeable)*

# Incremental Principle

---

*It must be both possible and useful  
to cite unwritten pages.*

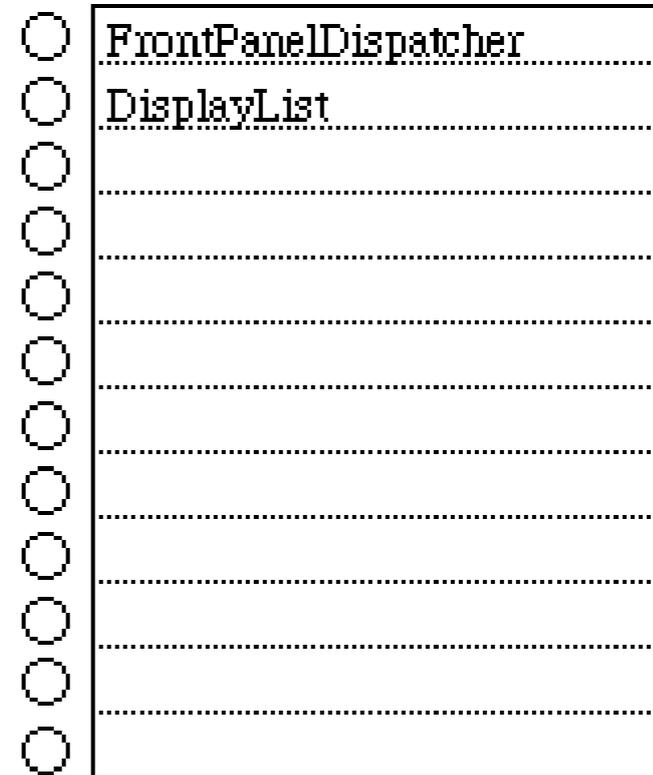
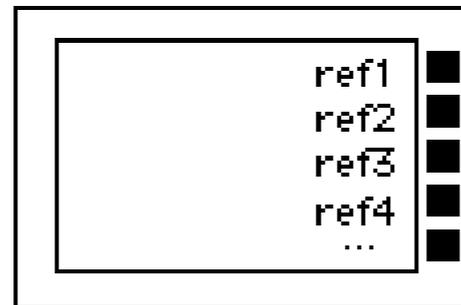
*(incomplete)*

## ○ BezelMenu



The BezelMenu provides an extra level of event dispatching (beyond that of the FrontPanel-Dispatcher) for the bezel buttons.

TheBezelMenu displays labels for active buttons and will provide scrolling when the number of active buttons exceeds that actually present in the bezel.



## Figure

All figures have dependants which they notify

Drawing  
Locator  
Group Figure

## Line Figure

Connects two endpoints which may be locators.

Track Handle  
Display Method  
Locator

## Group Figure

Holds more figures.  
(not in Drawing)

Forwards transformations

Cache image, void  
on update of member.

Figures

# Organic Principle

---

*The structure of the site is expected to grow and evolve  
with the community that uses it.*

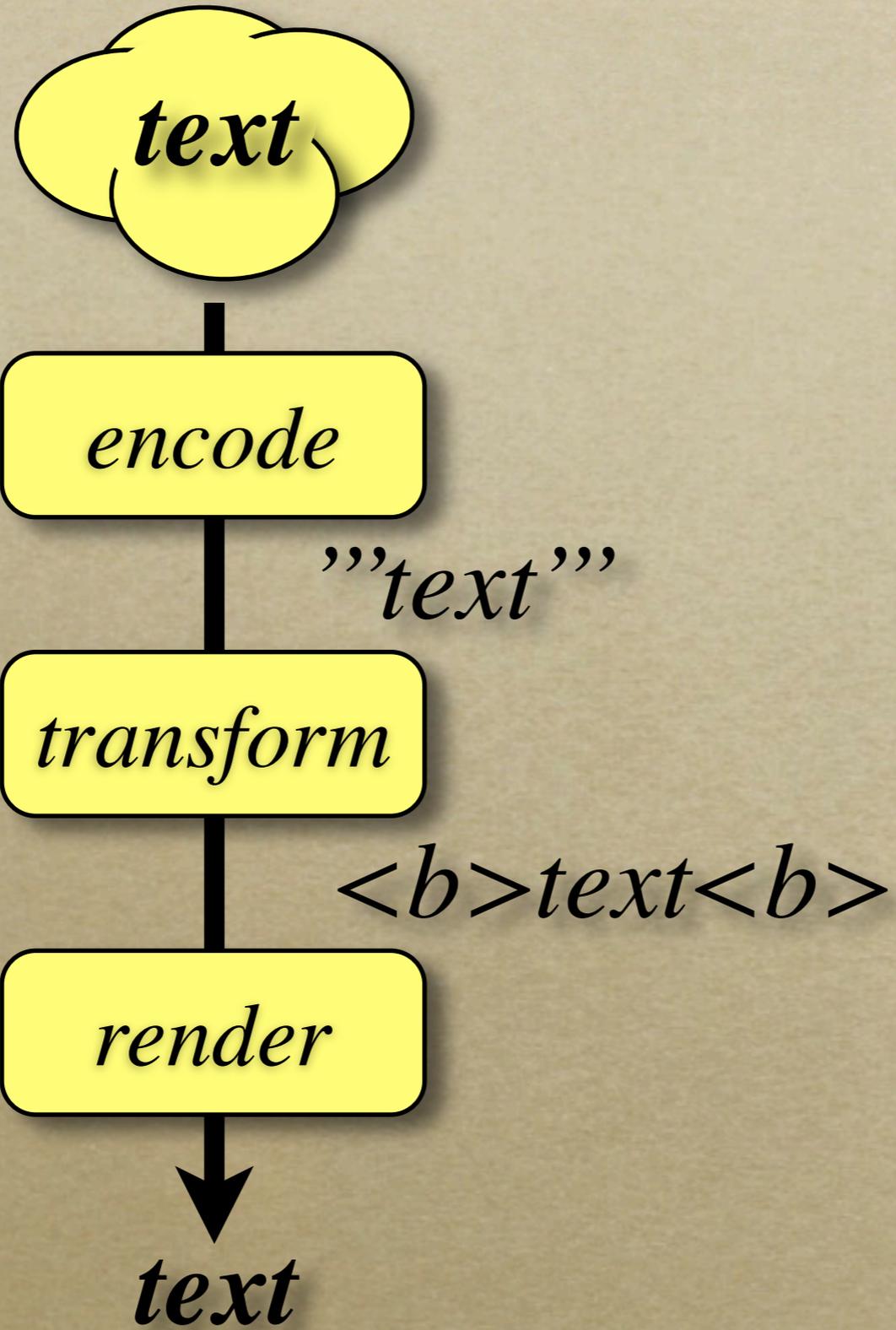
*(co-evolution)*

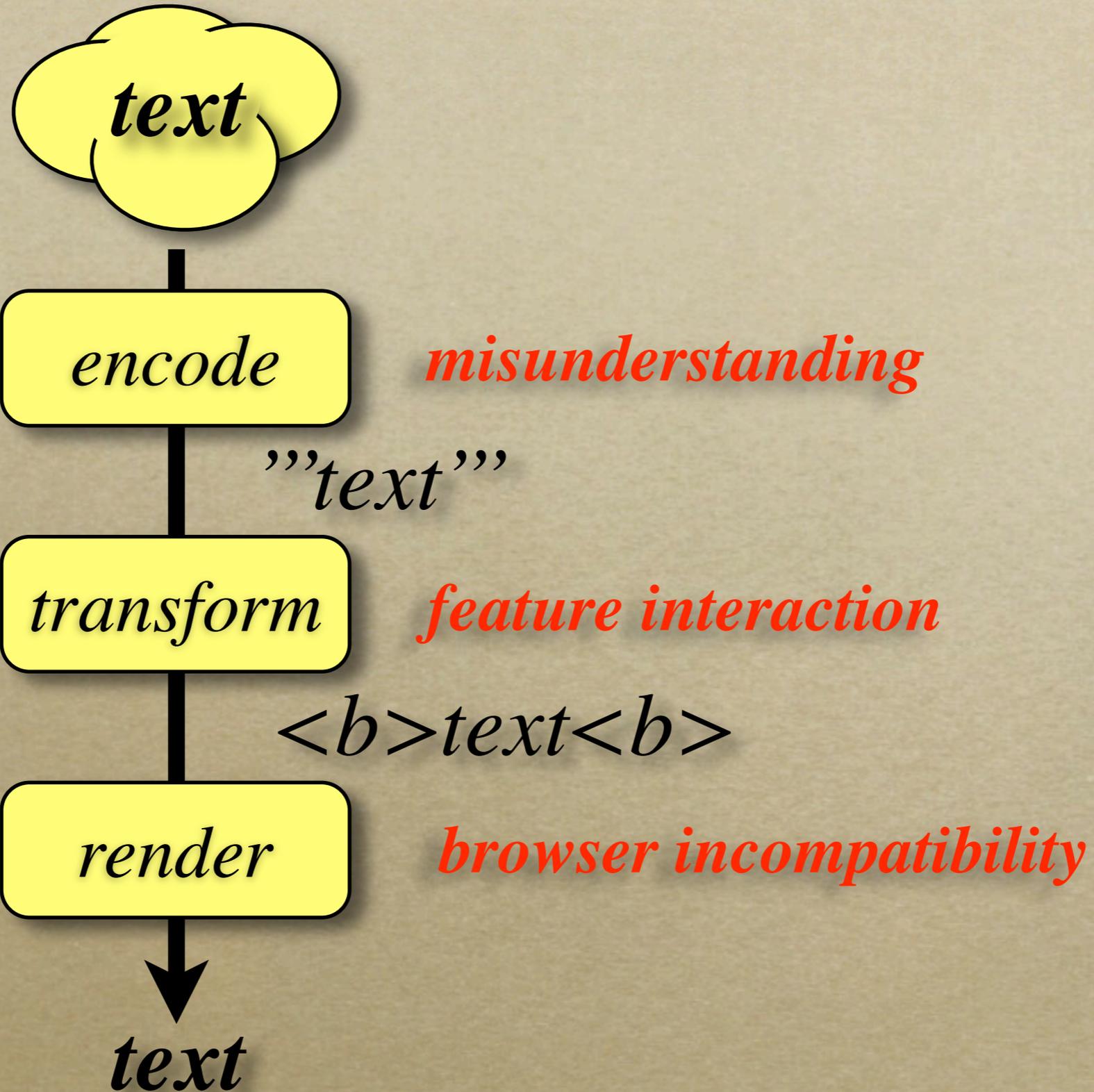
# Mundane Principle

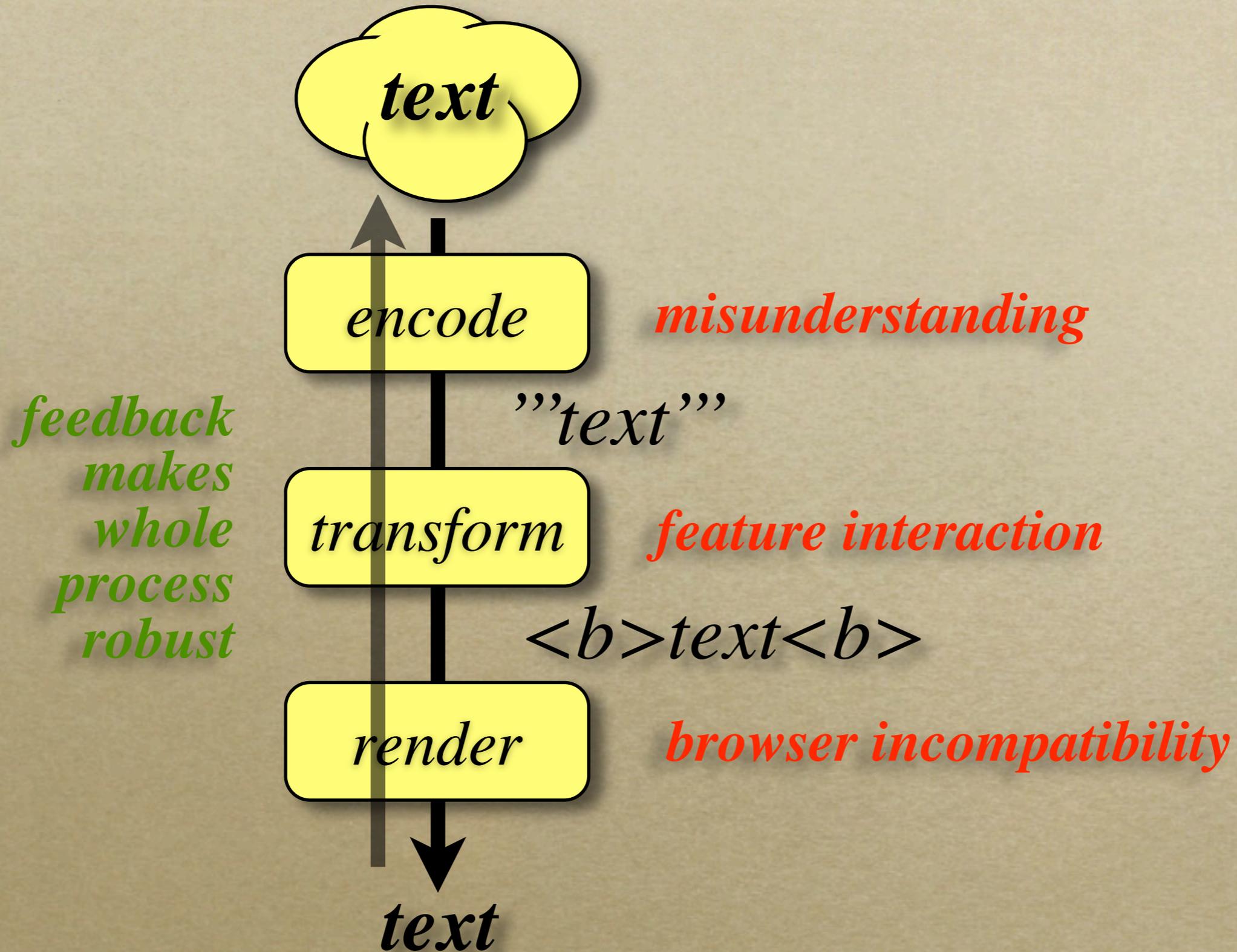
---

*A small number of conventions provide  
all necessary formatting.*

*(undistracted)*







# Universal Principle

---

*The mechanisms of editing and organizing are the same as those of writing so that any writer is automatically and editor and organizer.*

# Overt Principle

---

*The formatted and printed output will suggest the input required to reproduce it.*

*(concrete)*

# Unified Principle

---

*Page names will be drawn from a flat space so that no additional context is required to interpret them.*

*(vocabulary)*

# Precise Principle

---

*Pages will be titled with sufficient precision to avoid most name clashes, typically by forming noun phrases.*

*(happy accidents)*



# Good Style



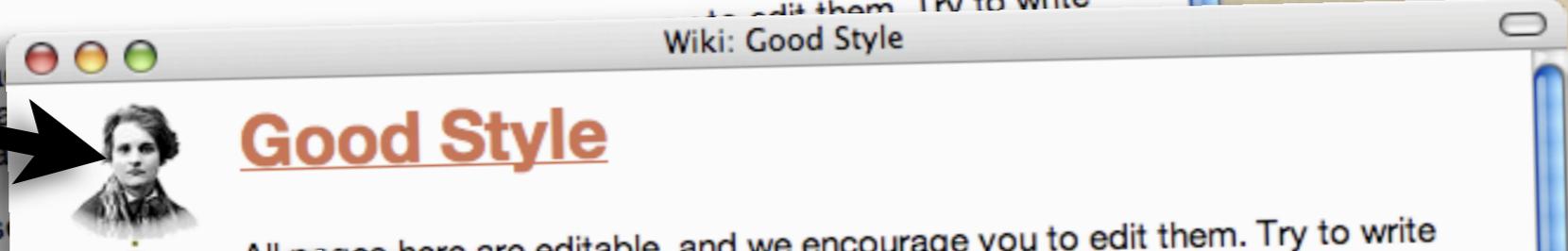
All pages here are editable, and we encourage you to edit them. Try to write where possible. Expect others to elaborate or complete your work.



These pages need not be chronological. If something isn't complete or quite right, correct it in place. If you want to register an opposing viewpoint, try parenthetically citing a new page who's name plays off of the original title.



As an author, you can type pretty much what you want to see. But, we have some formatting rules (try editing this page to see these rules in action... a screen display might be worth a thousand words. [ChiefHeretic](#)) :



# Good Style

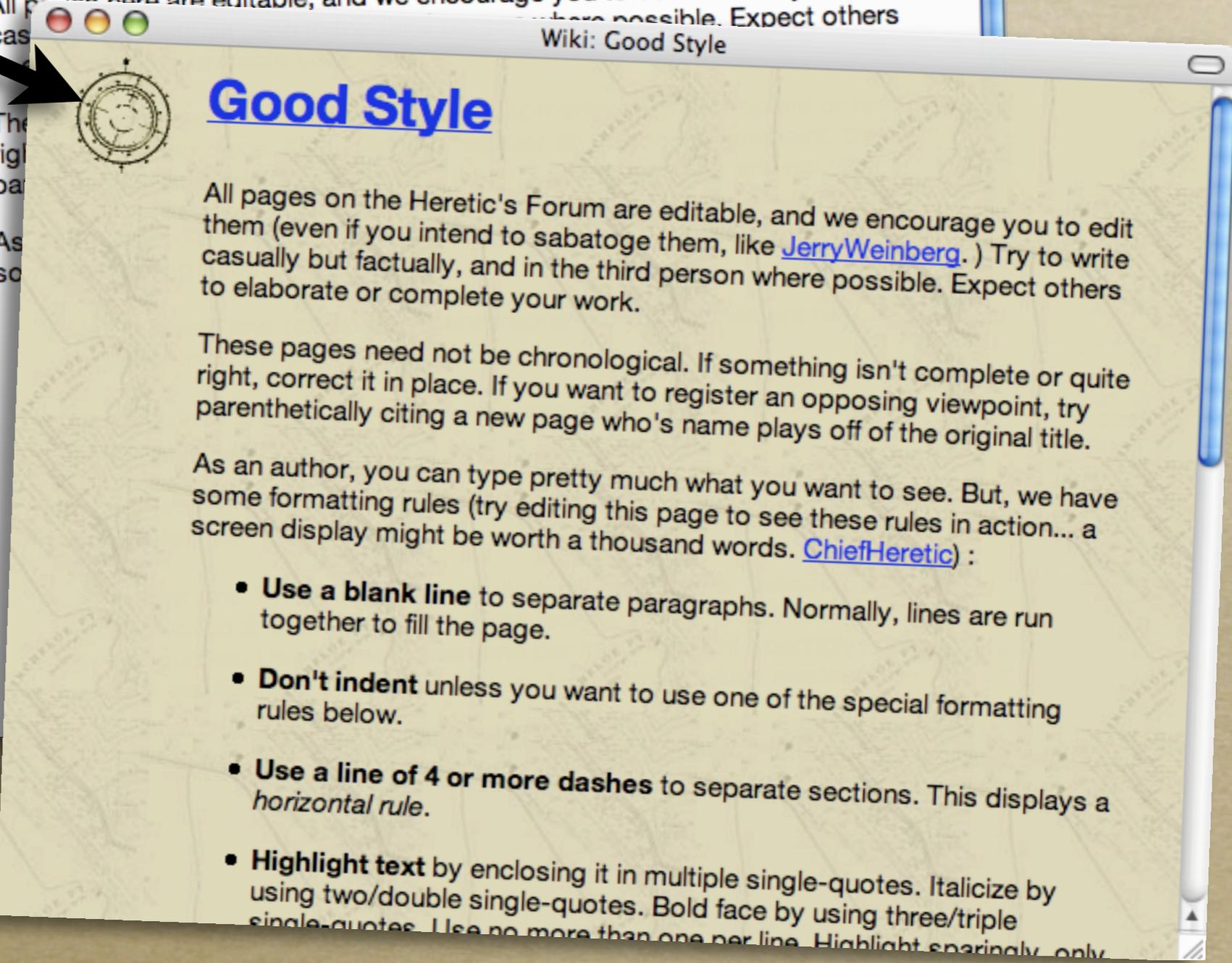


All pages here are editable, and we encourage you to edit them. Try to write where possible. Expect others to elaborate or complete your work.



The right page

As some



# Good Style



All pages on the Heretic's Forum are editable, and we encourage you to edit them (even if you intend to sabotage them, like [JerryWeinberg](#).) Try to write where possible. Expect others to elaborate or complete your work.

These pages need not be chronological. If something isn't complete or quite right, correct it in place. If you want to register an opposing viewpoint, try parenthetically citing a new page who's name plays off of the original title.

As an author, you can type pretty much what you want to see. But, we have some formatting rules (try editing this page to see these rules in action... a screen display might be worth a thousand words. [ChiefHeretic](#)) :

- **Use a blank line** to separate paragraphs. Normally, lines are run together to fill the page.
- **Don't indent** unless you want to use one of the special formatting rules below.
- **Use a line of 4 or more dashes** to separate sections. This displays a *horizontal rule*.
- **Highlight text** by enclosing it in multiple single-quotes. Italicize by using two/double single-quotes. Bold face by using three/triple single-quotes. Use no more than one per line. Highlight sparingly, only



# Maker Project

## Workshop Outline

1. Building a one-computer circuit that flashes code on an LED
2. Adding a second computer that plays sound instead
3. Adding a third computer that will adjust speed, tempo or both
4. Adding a fourth computer that will display parameters on TV

## Supplies

You will need to bring: a [Solderless Breadboard](#) (like [RadioShack 276-175](#)), a battery holder (like [RadioShack 270-398](#)), two appropriate, #22 hook-up wire preferably red, and a pair of wire-strippers.



We provide a  
an LED, a 100



# Radio Shack

This page exists only on another site.  
Click its icon to go there.



Edit

Last edited August 19, 2006

Return to [WelcomeVisitors](#)  
Radio Shack



# Radio Shack

The small cabin near the bridge where the ship's telegraph operator kept his equipment and sent his messages became known as the *radio shack*. The notion that one could talk to ships at sea captured the imagination of amateur experimenters who fueled a cottage industry. Your local [RadioShack](#) may have one small corner devoted to tools and parts. Think of it as a small shrine to the founders of our industry. Stop by, buy some parts, and build something.

At one time, it had some use as a an electronics hobby-shop; back when someone handy with a soldering iron could build gear as good as what was available commercially. Nowadays, surface mount technology and high levels of integration have done tremendous damage to electronics as a hobby; no matter how handy you are with a soldering iron; you're not gonna successfully solder that ball grid array.

Nowadays, it's still useful as a place to get accessories, some types of gear (police scanners and amateur radio), and such. If you want to buy radio

# Tolerant Principle

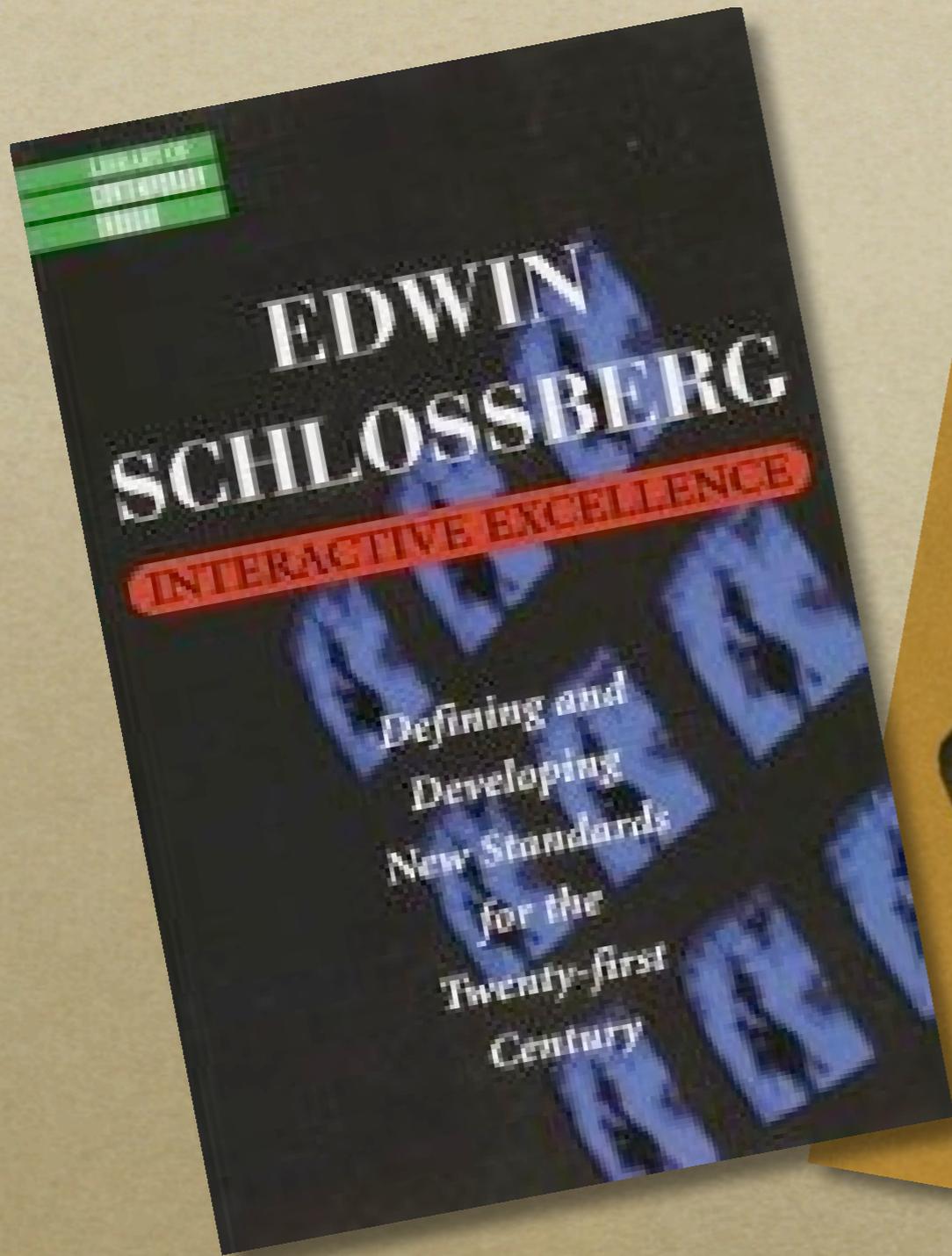
---

*All input will produce output even when the output is not likely to be that desired.*

# Observable Principle

---

*Activity within the site can be watched and reviewed  
by any other visitor.*

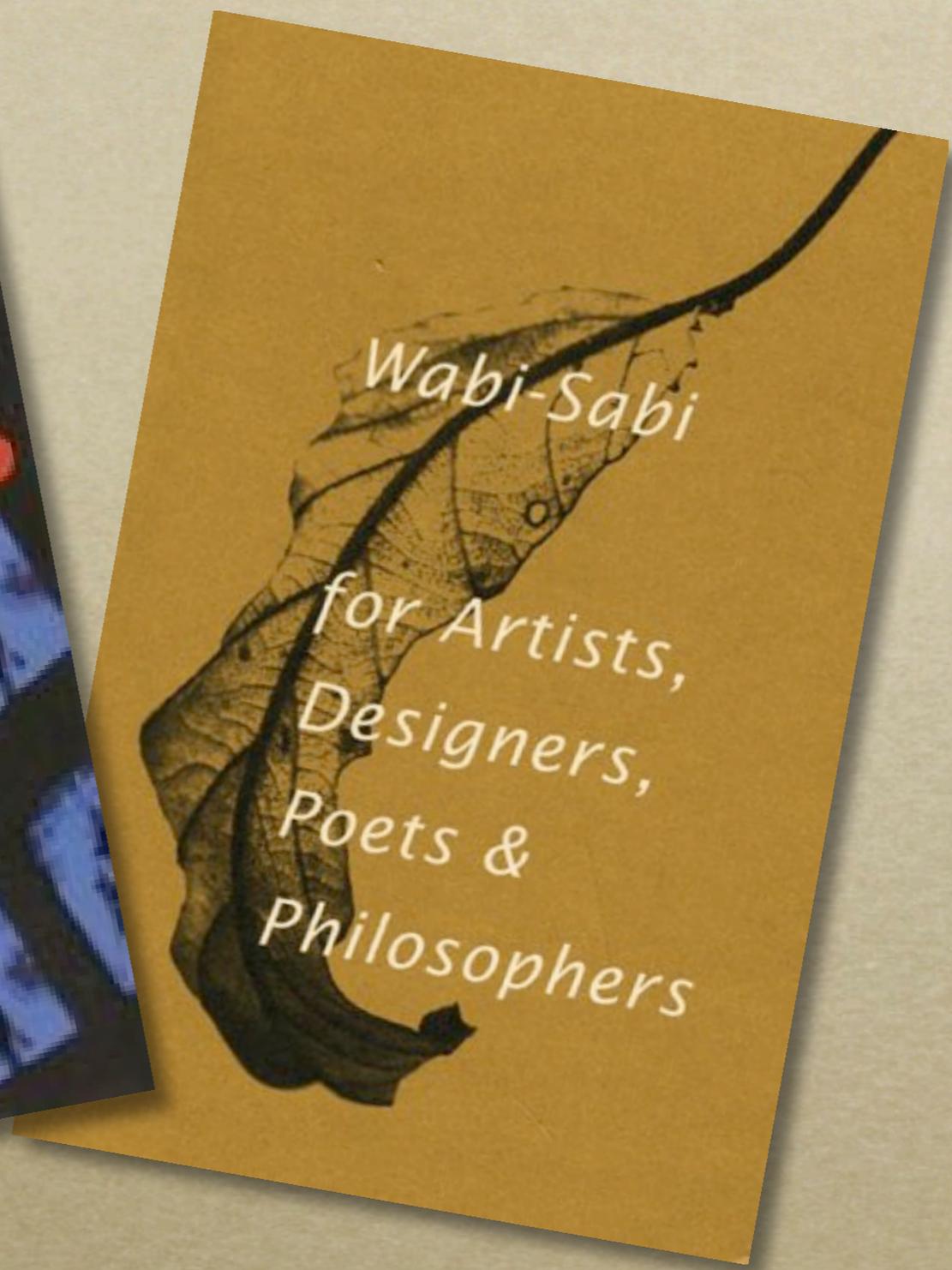


Live Case Study

# EDWIN SCHLOSSBERG

**INTERACTIVE EXCELLENCE**

Defining and  
Developing  
New Standards  
for the  
Twenty-first  
Century



Wabi-Sabi

for Artists,  
Designers,  
Poets &  
Philosophers

## RecentChanges



Steve and Mike explained how the video refresh circuits synchronized with the waveform display. Our design to date is not affected.

However, that did get us on the topic of infrastructure for managing the user menu.

- FrontPanelDispatcher
- DisplayList
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 

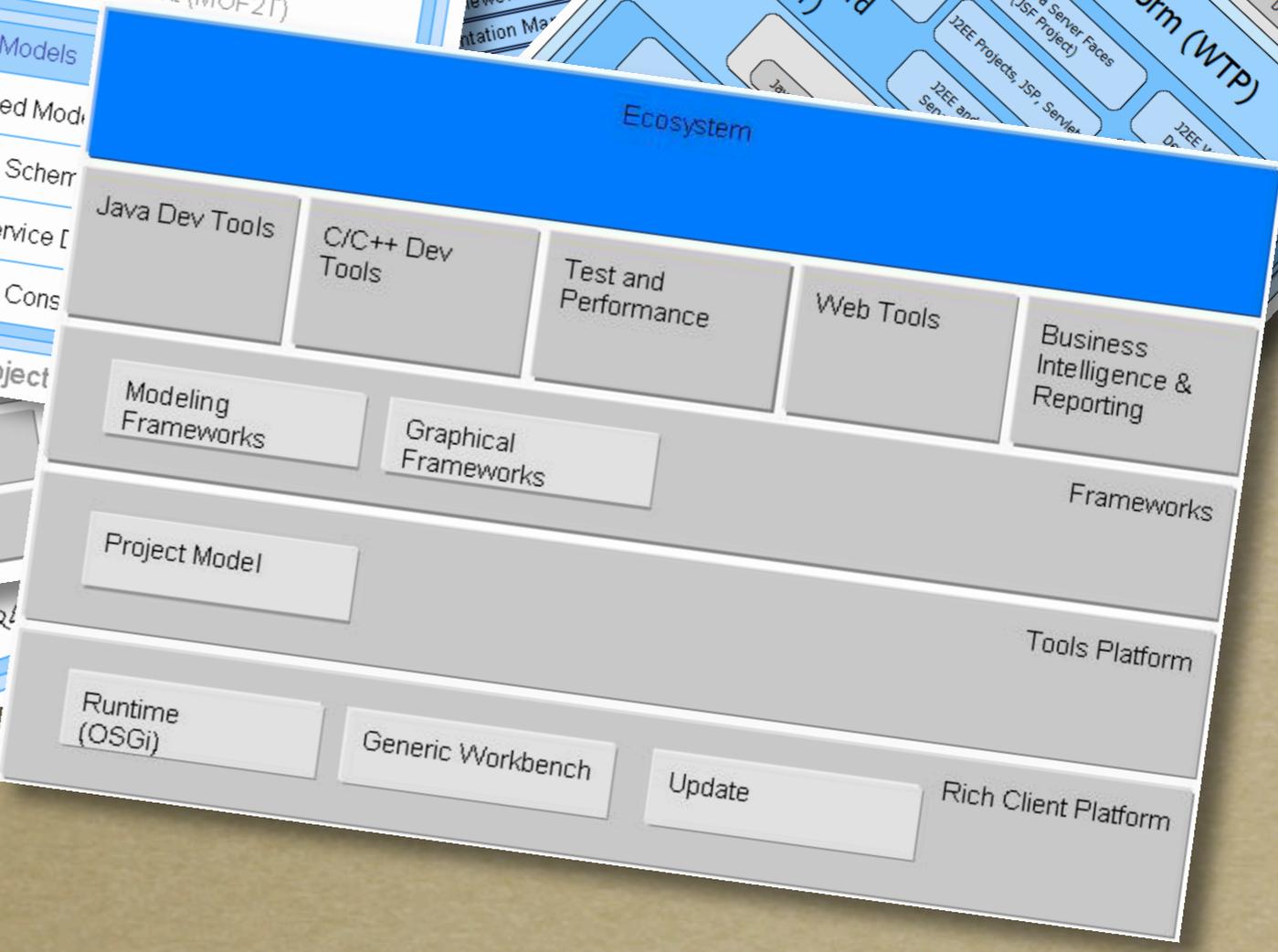
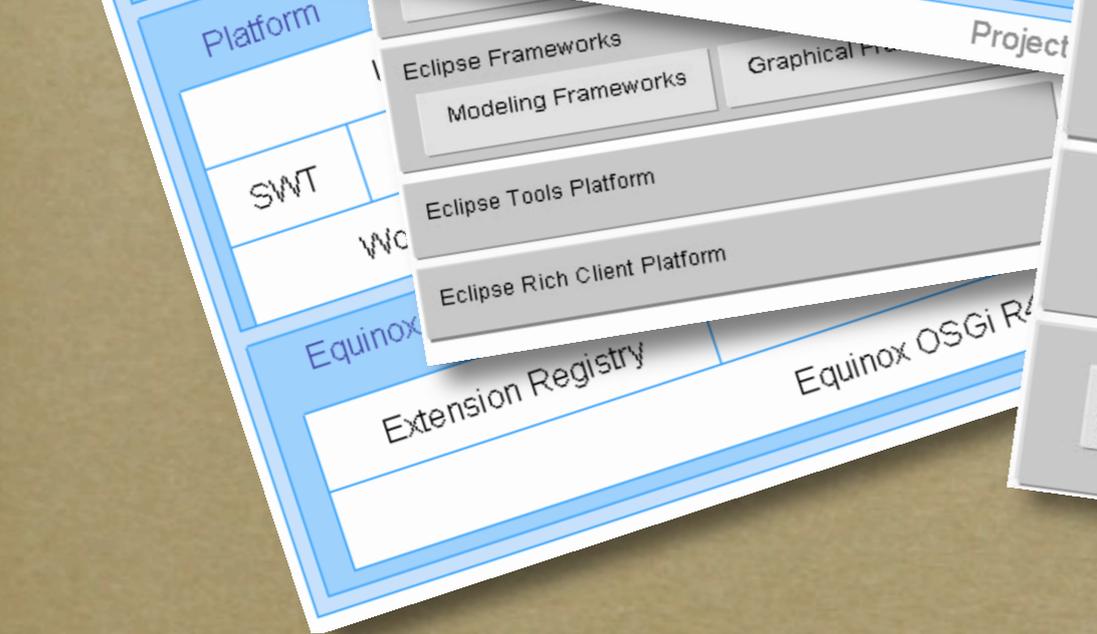
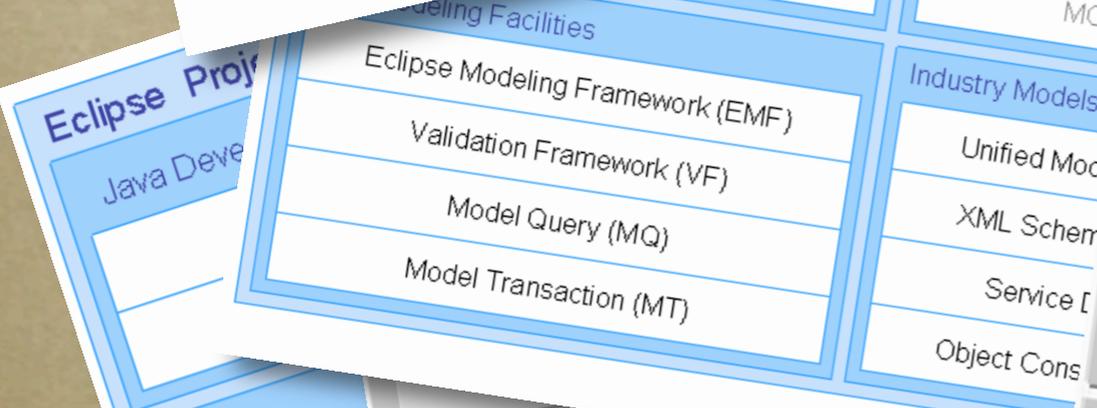
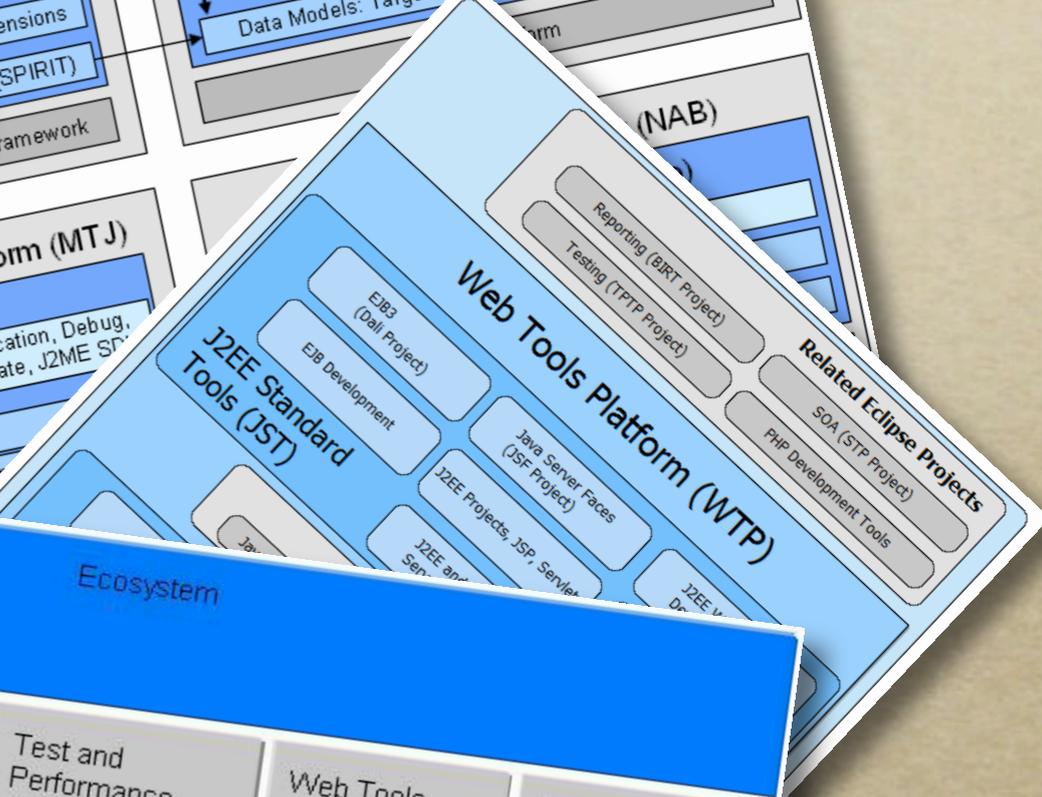
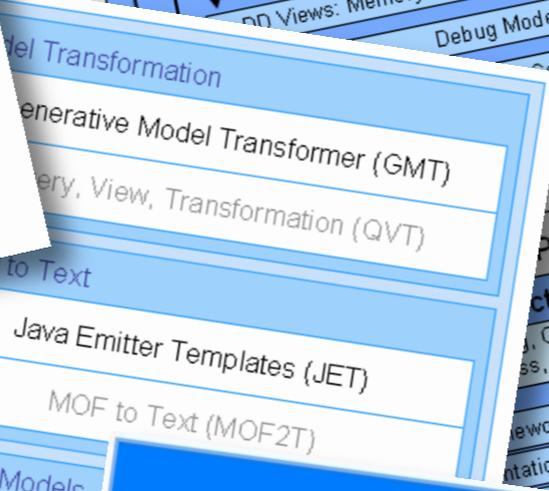
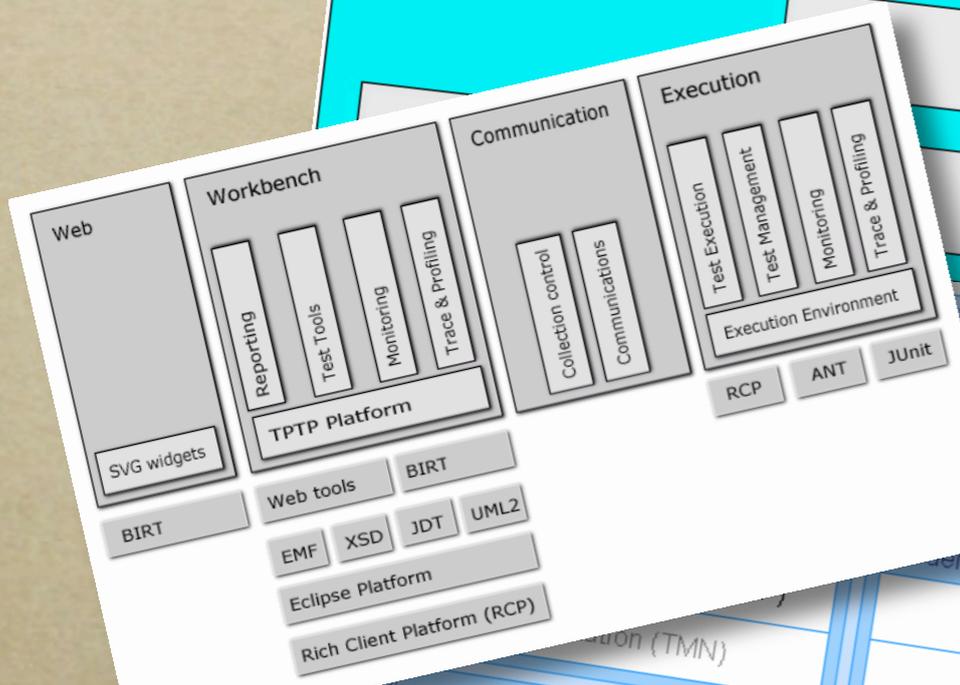
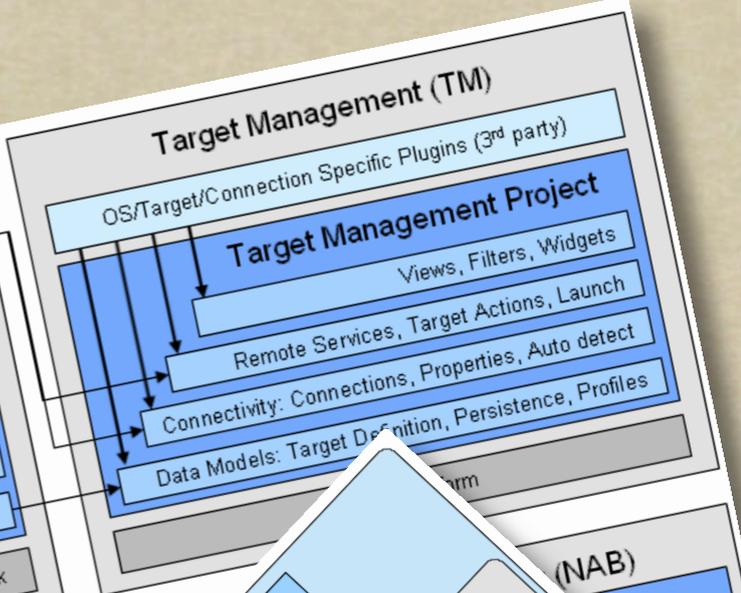


*change sorting*

# Convergent Principle

---

*Ambiguity and duplication can be removed by finding and citing similar or related content.*



Web Tools Platform

J2EE Standard Tools (JST)

- EJB3
- EJB
- JSF
- J2EE Projects
- J2EE Web Service Development
- J2EE Models and Frameworks
- JST Server

Java Developer Tools

EMF JEM

Web Standard Tools (WST)

- ATF
- Server Frameworks and Monitors
- Web Project, HTML, CSS, Javascript
- XML, Schema, DTD, SSE
- Web Service Development
- Common Frameworks (e.g. Facets)
- Relational Databases (Future: move to DTP)
- Database Adapters

DTP (future)

Graphical Editor Framework (GEF)

Eclipse Modeling Framework (EMF)

Eclipse Platform (Project Model)

Eclipse OSGi Runtime

See this [document](#) for public interface. Use [edit](#) to change this and nearby elements.

*see this run*

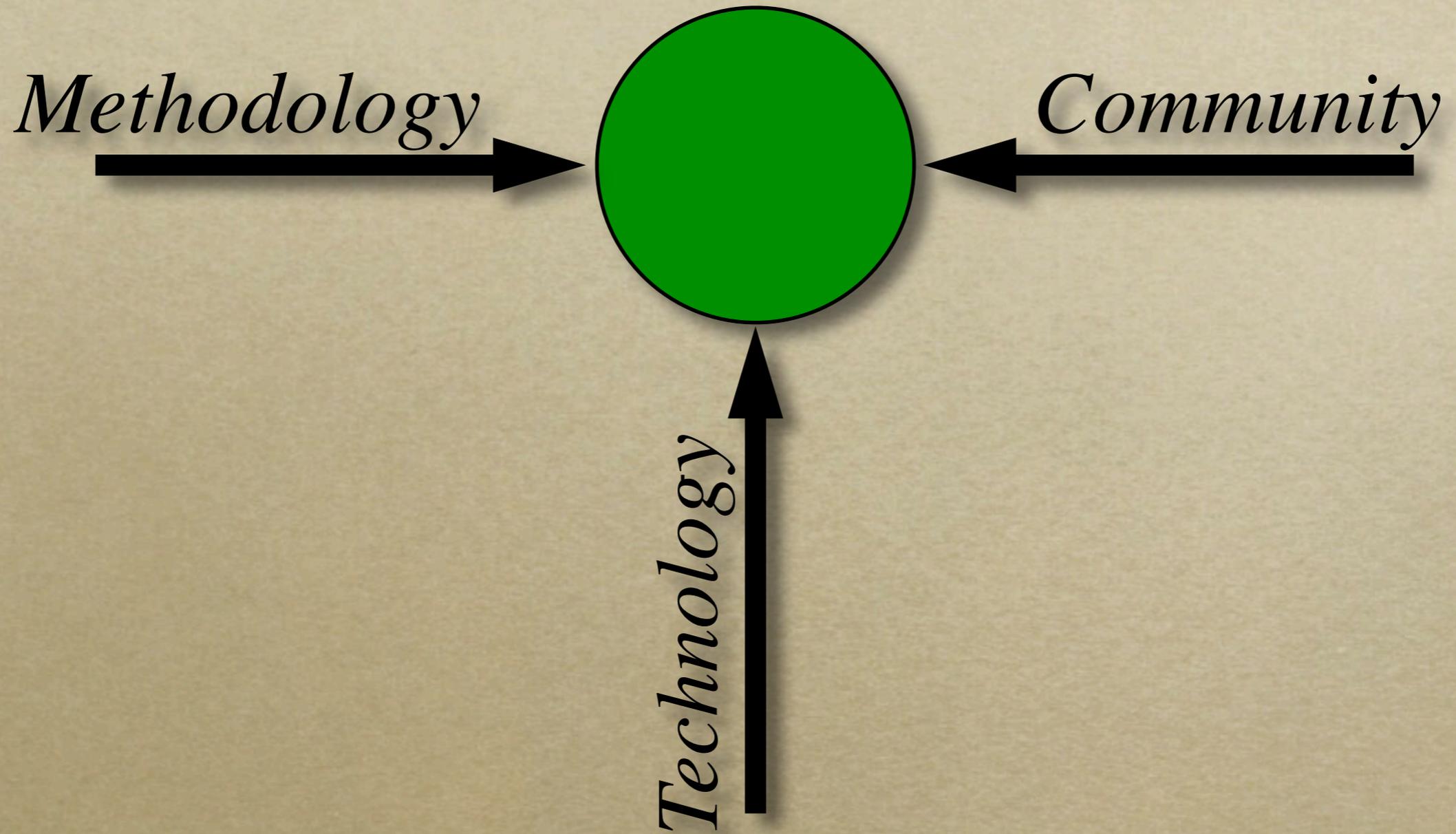
# Wiki Design Principles

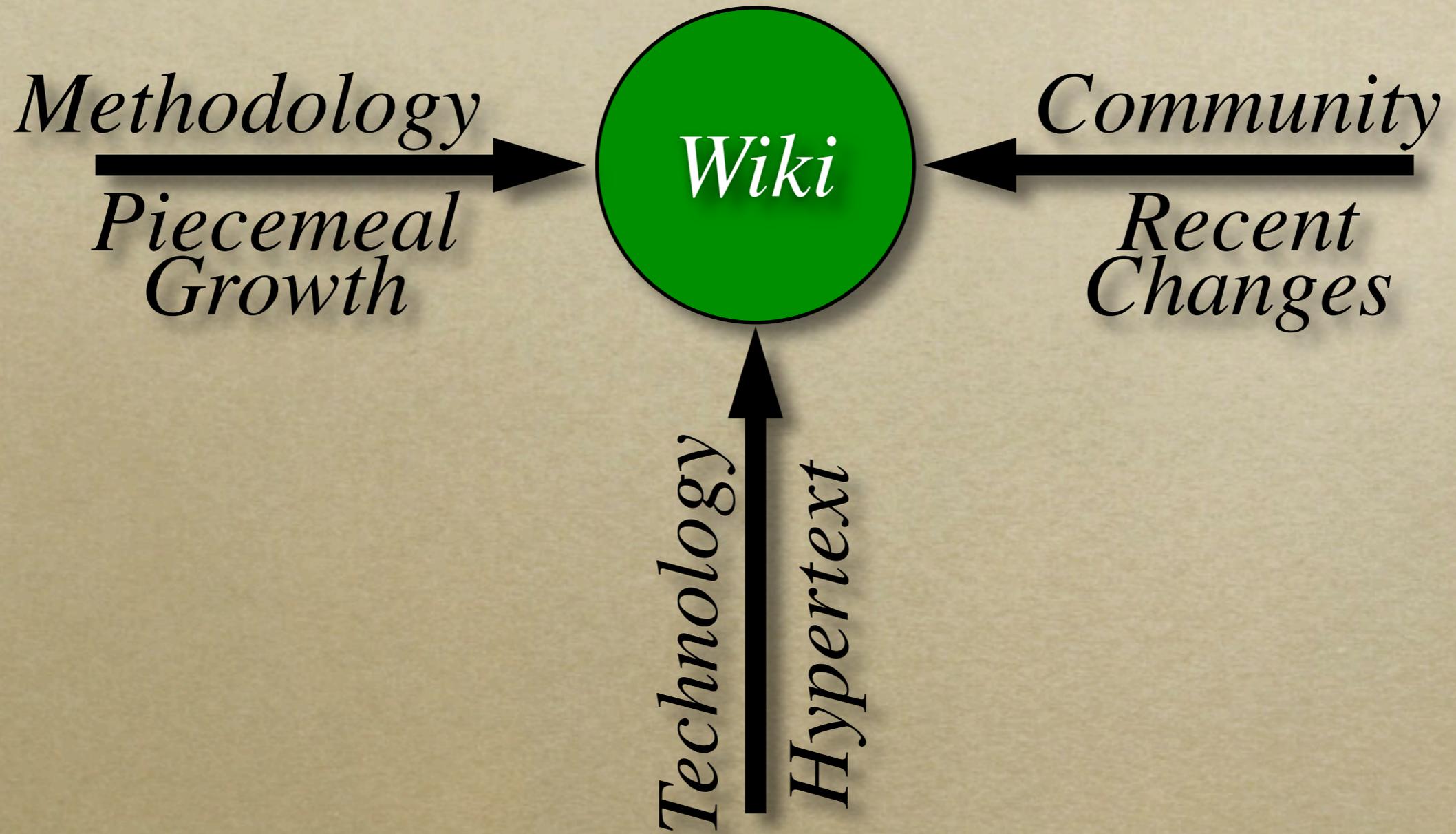
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*Open, Incremental, Organic,  
Mundane, Universal, Overt,  
Unified, Precise, Tolerant,  
Observable, Convergent.*

# Wiki Nature

*wiki as a meme vector*





# How can so little do so much?

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*Sweet spot of new technology*  
*Assemble, guide and transform community*  
*Leave room for other's innovation*

