

# Wikis for **Software Engineering** Workshop

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Ward Cunningham  
AboutUs.org

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<http://c2.com/wikisym2007>



# Outline

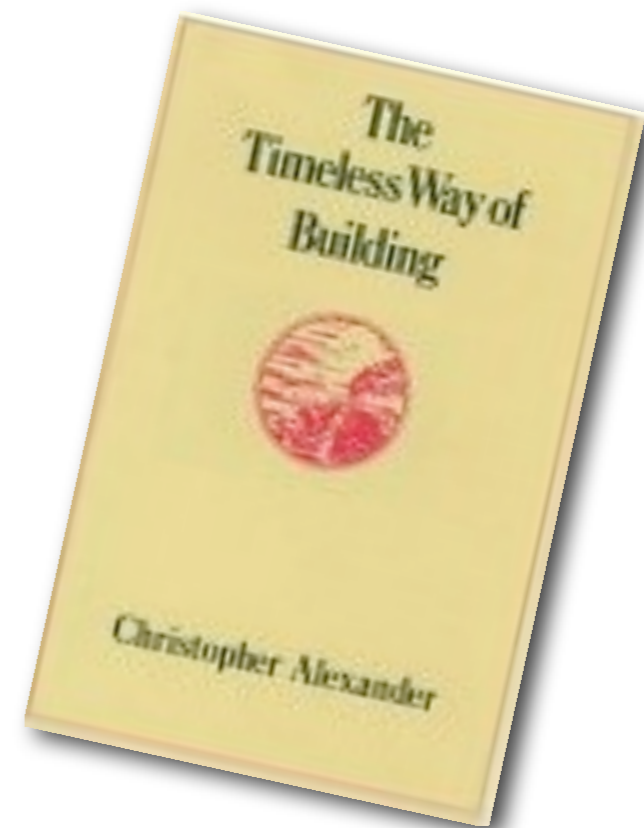
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- Aspects of the young Agile that influenced Wiki
- How the Wiki community helped mature Agile
- Wiki as an Agile project management tool
- Wiki as an application development platform
- WikiNature as an inspiration for future system design

# Generative Process

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- Solutions at hand while doing
- Passed through collective experience
- Emphasize experiential aspects of programming and wiki



# Shared Ownership

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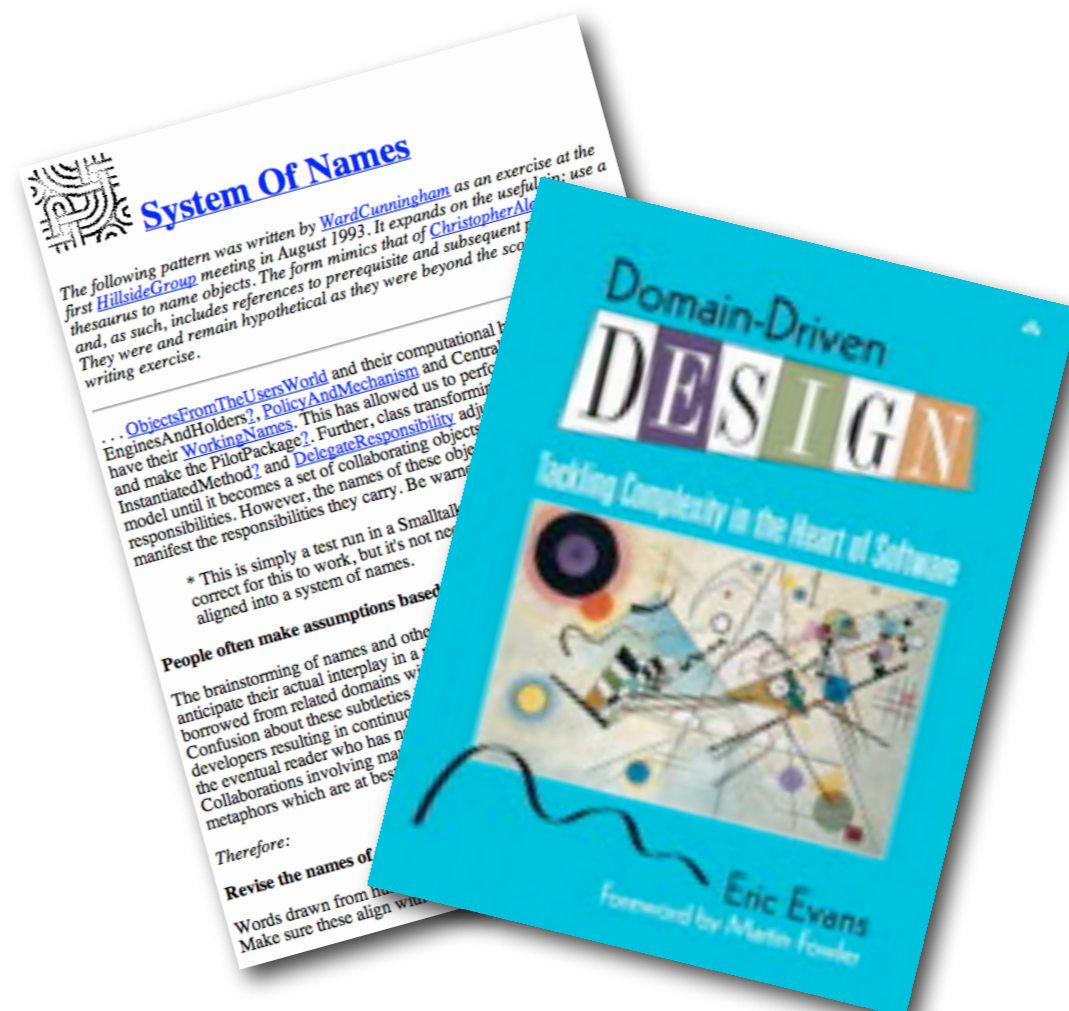
- Essential difficulty of OO is collaboration, not classification
- Object boundary aids reading, not writing
- Solutions cross boundaries, require refactoring
- Expect relentless refactoring of programs and wiki



# Ubiquitous Language

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- Rename is most powerful refactoring
- Pronounceable words enter the vernacular
- Choose program and pages names from a *System of Names*



# Fear of Change

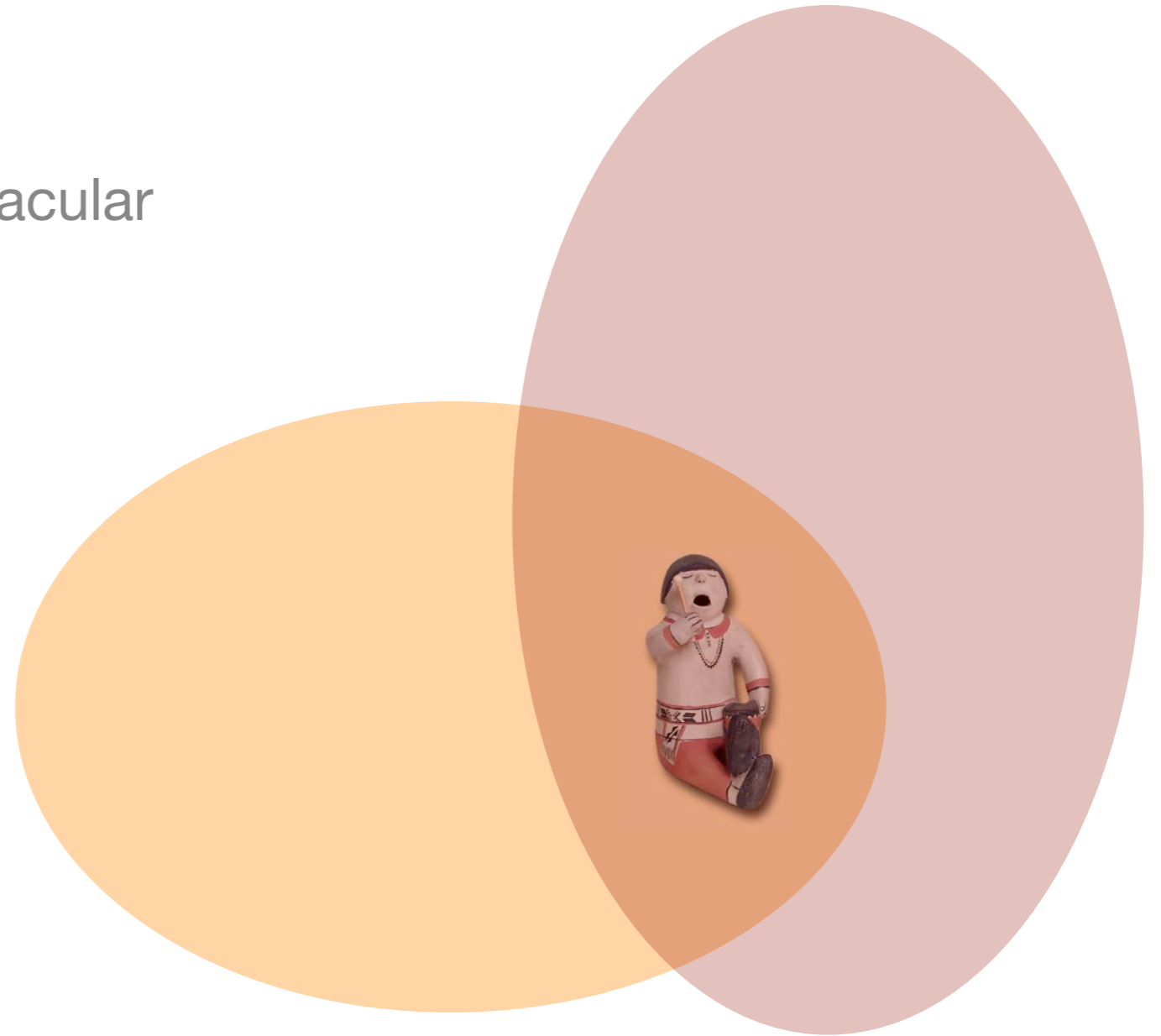
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- Expectations of “prudent man” is to avoid speculation
- Software engineering is risk adverse to dysfunction
- Pairing gives one courage to write original code
- My wiki community gave one courage to try agile

# Boundary Objects

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- Manager's Dilemma
- Story as center of focus
- Story has title, part of future vernacular



# Stories on Wiki

The screenshot shows the Eclipse Wiki interface. The top navigation bar includes links for HOME, COMMUNITY, MEMBERSHIP, COMMITTERS, DOWNLOADS, RESOURCES, PROJECTS, and ABOUT US. The page title is "Portal Process Process". The main content area contains a paragraph: "This page describes the steps required for adding new process support (so the MyFoundation portal. These steps are initiated and supervised by a staff member of the foundation." Below this is a section titled "Preliminary Design" with a paragraph: "In this step the champion assembles process stakeholders, builds a stakeholder agreement has been reached, the development process in action has been identified to complete the work and priorities have been established. Decisions made in this step should be recorded in a foundation wiki page is as follows." A list of bullet points follows: process summary, stakeholders, existing documents, pain-points as-is, scenarios sketches, simplest successful case, complications on successful cases, failed cases handled automatically, failed cases requiring manual intervention, deployment plan, and development with new components. A sidebar on the left lists various actions like Article, Discussion, Edit, History, Navigation, Main Page, Community portal, Current events, Recent changes, Random page, Help, and Toolbox.

The screenshot shows an "About Us" page with a green and blue theme. The title "About Us" is prominently displayed. Below the title is a search bar with a "Find!" button. A navigation bar includes links for article, history, delete, and move. A table titled "Our Work" is shown, detailing various teams and their associated tasks and missions. The table has a "Values" column on the right. At the bottom, there is a footer with a license notice: "All content is available under the terms of the GFDL and/or the CC By-SA License. (See Copyrights for details.)" and a modification timestamp: "This page was last modified 22:54, 5 October 2007."

Team	Tasks	Mission	Values
Company wide	Projects	Mission	Values
Development Team	Tasks	Mission	
Content Team	Tasks	Mission	
Community	Tasks	Mission	
Operations Team	Tasks	Mission	



## Views ▾

- ▶ [Article](#)
- ▶ [Discussion](#)
- ▶ [Edit](#)
- ▶ [History](#)

## Navigation ▾

- ▶ [Main Page](#)
- ▶ [Community portal](#)
- ▶ [Current events](#)
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## Toolbox ▾

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## Portal Process Process

This page describes the steps required for adding new process support (sometimes called workflows) to the MyFoundation portal. These steps are initiated and supervised by a "champion", which is expected to be a staff member of the foundation.

### Preliminary Design

[\[edit\]](#)

In this step the champion assembles process stakeholders, builds a business case for the automation, and produces scenario sketches for the automated process in action. The step completes when stakeholder agreement has been reached, the development effort has been estimated, individuals have been identified to complete the work and priorities have been established.

Decisions made in this step should be recorded in a foundation wiki page. The preferred outline for such a page is as follows.

- process summary
  - stakeholders
  - existing documents
  - pain-points as-is
- scenarios sketches
  - simplest successful case
  - complications on successful cases
  - failed cases handled automatically
  - failed cases requiring manual intervention
- deployment plan
  - development
    - new components
    - database changes
  - review
    - security/privacy
    - useability
  - operations



## Views ▾

[▶ Article](#)[▶ Discussion](#)[▶ Edit](#)[▶ History](#)

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## Toolbox ▾

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## Portal Polling Process

Revision as of 03:08, 17 March 2007 by [Ward.eclipse.org](#) ([Talk](#) | [contribs](#))  
([diff](#)) ←[Older revision](#) | [Current revision](#) ([diff](#)) | [Newer revision](#) → ([diff](#))

This page describes portal polling functionality being developed according to the [Portal Process Process](#).

### Contents [\[hide\]](#)

- [1 process summary](#)
- [2 scenario sketches](#)
  - [2.1 find and answer poll](#)
  - [2.2 read comments from others](#)
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### process summary

The foundation board has asked that committers be regularly surveyed and that survey results be reported as a key process indicator (KPI) on a quarterly bases.

One survey was conducted by FOSS researchers from Norway. Although we discussed having them share results and possibly do further surveys, we have only ever conducted one survey and recieved its preliminary results.

Bjorn predicted that response rate for the Norwegian survey would be about 10%, which it was. Ward suggested that response rate be used as a question independent metric to be tracked quarter to quarter as a KPI.

## process summary

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The foundation board has asked that committers be regularly surveyed and that survey results be reported as a key process indicator (KPI) on a quarterly bases.

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With the advent of the MyFoundation portal, we have the opportunity to present poll questions on a regular basis. We suggest that an average polling rate of one question a week will give highest response rate and finer temporal resolution than traditional web polling methods.

We also believe that interesting questions and immediate tallys will encourage regular visits to the portal which will have indirect benefits associated with higher levels of participation.

## scenario sketches

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### find and answer poll

- a committer will be presented with a new poll question each week
  - he/she makes one selection. on a five step scale of *disagree* to *agree*, and submits choice.
  - choice view is replaced with instant results as bar graph
  - bar graph updates (with each refresh) as others complete the week's poll
- a committer can add an open ended comment in addition to five step scale.
- a committer can edit a previously cast choice or comment throughout the week.
- if there are no current poll questions, no component appears

### read comments from others

- a committer has cast a choice and sees bar graph
  - he/she indicates one bar of the graph to see comments associated with that bar
  - (we suggest this use the bubble mechanism of swim.php)
- if there are no comments, an indication of this replaces comments display
- if there are too many comments to view, some are selected by an arbitrary means

### suggesting new questions for polls

- a committer chooses to suggest a question
  - he/she is presented with a list of pending questions
  - he/she can check off any pending questions and *endorse* them
- he/she can add a new question and endorse it instead
  - apply same text conversion as committer vote (recognizing urls and bug numbers)

# development plan

## component

Polls will consist of a single component, instantiated for committers, and customized for pollmeisters.

The component will offer three views, revert, choose, and suggest.

Revert will be the default view when a choice has been cast, choose will be the default view otherwise.

Revert will offer links [choose] and [suggest] to other views. They will provide link [revert] back to revert.

Choose will only provide the [revert] link when a choice has been made. This behavior mirrors that of voting in **New Committer Process**.

## daily activity

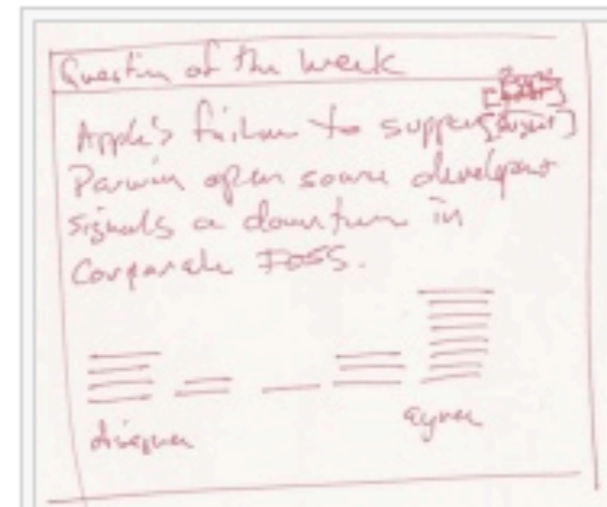
The component will have DailyActivity that ensures that we have a new question posted every week. It will use logic such as the following.

- do we have a question posted for next week
- if not, do we have a question in the queue
- if so, post the most endorsed question for next week

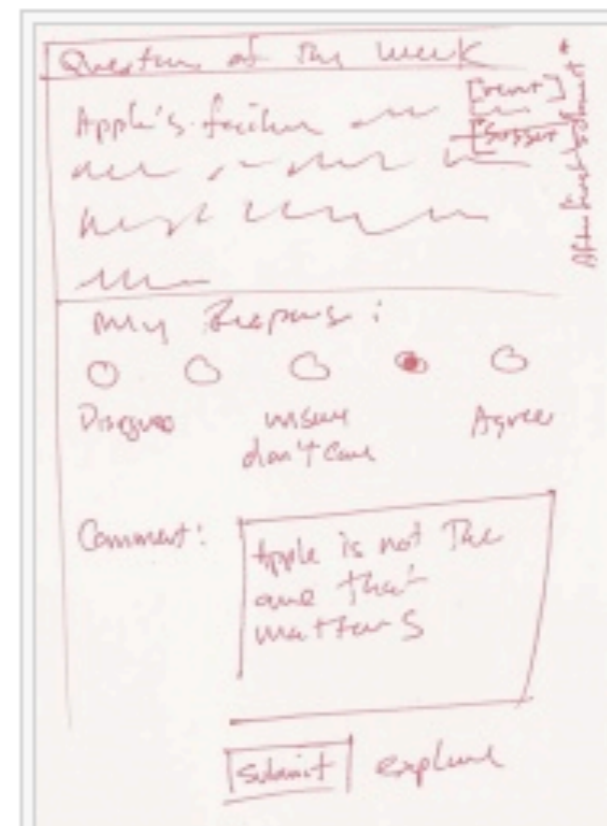
## database

Polls will be stored as two new *portal* tables.

- Poll\_Question



Revert view (default): Instant results for current poll



Choose view: Choose answer and express additional comments

## phases

Development will take place in phases, each lasting a day or two and employing one or two people.

- phase 1
  - make db tables -- done
  - make revert view reporting decimal numbers -- done
    - make report with cool graphics replacing numbers -- done
    - check that factory works without questions -- done
  - make choose view -- done
    - no default choice, but choosing is required -- done
    - check that repeated choosing is ok -- done
    - add a "grayed explanation" to the comment field and clear it on first entry to field (requires javascript) -- done
- phase 2
  - make suggest view -- done
    - show existing suggested questions -- done
    - accept endorsement of questions -- done
    - show user's current endorsements as initial checks -- done
      - retract endorsement when save with checks cleared (postponed)
      - warn buildmeister that checks mean multiple things -- done
    - check that view works with no suggestions -- done
    - accept new suggestion entry -- done
    - add delete function available to pollmeister -- done
    - add post function available to pollmeister -- done
  - make the DailyActivity -- done

## **review**

The choices of each committer are recored in the portal database keyed by their login. We will not provide means for identifying the source of any questions or answers, but will acknowledge that anyone with privilaged access to the database could gain this information. We will not employ any technical means such as encription to prevent access.

There are no security concerns not already attended to by the components of the **New Committer Process** which have already been addressed.

We will consider the component useable if we achieve a 10% or greater response rate. We will initially measure this as poll choices cast vs. committer votes cast until we establish some better measure of committer portal usage. A one-time committer emailing will offer another opportunity to measure response rate (see below).

## **operations**

Beta deployment is possible after phase 1, if questions are loaded by ad-hoc query. We recommend beta deployment after phase 2 and full deployment after phase 3.

We will launch with one month of questions. The pollmeister will use repeating calender events to remind him or her to check monthly that there are sufficent questions. The pollmeister will also report to the board quarterly participation numbers.

After a month or so of experience we will email all committers suggesting participation on a week with a suitably good suggestion.



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## Our Work

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<a href="#">Development Team</a>	<a href="#">Tasks</a>	<a href="#">Mission</a>	
<a href="#">Content Team</a>	<a href="#">Tasks</a>	<a href="#">Mission</a>	
<a href="#">Community</a>	<a href="#">Tasks</a>	<a href="#">Mission</a>	
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## Development Mission Statement

[back to Our Work](#)

### [\[edit\]](#) Mission

The AboutUs [DevelopmentTeam](#) will deploy valued functionality on a regular basis while simultaneously creating more opportunity for future functionality based on a clean and well organized codebase, well thought out procedures, and an informed and motivated staff.

### [\[edit\]](#) Goals

- Competence maintaining our mediawiki platform.
- Leadership in wiki technology.
- Reliable and efficient server operations.
- Appropriate participation in the open source community.



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## Our Work

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## Category:DevelopmentTask






[OurWork](#) < [DevelopmentTeam](#) < **Prioritized Tasks**

Create Development Task 


See also: [Category:CompletedDevelopmentTask](#)

### [\[edit\]](#) [DevelopmentTeam Prioritized Tasks October 1-15](#)

#### Table Stakes

- [\(2\) Create Development Mission Statement \(Ward\)](#) 
- [\(3\) CoalesceDevelopmentPlan for \(October 16-31\) \(Brandon\)](#) 
- [\(3\) Improving Site Performance \(Ali Aslam\)](#) 
- [\(4\) BugSquashing and FireFighting \(October 1-15\) \(Jason\)](#) 
- [\(2\) Configure Highspeed Internet Routers \(John\)](#) 

#### Development

- Please see [SubDomainPage --lapetus 21:40, 13 October 2007 \(PDT\)](#)
- [\(3\) NewSkin \(Vinh\)\(10-10\)](#) 
- [\(3\) Redesign Layout of Homepage \(Vinh\)](#) 
- [\(5\) Redesign DomainBox Template \(Vinh\)](#) 
- [\(2\) Further Log Analysis \(?\)](#) 
- [\(8\) Topsoil Shadow of Admin Wiki \(Brandon\)](#) 
- [\(6\) Influencia \(Arif Iqbal\)](#) 



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## AboutUs Widget

[OurWork](#) < [DevelopmentTeam](#) < [Priorities](#) < **(2) AboutUs Widget (Ward)**

### [edit] What (summary)

Create an AboutUs Widget that can be placed on other websites. This extends our current badge to include a popup of the host site's thumbnail that includes a search box that will search AboutUs.org.

### [edit] Why this is important

This encourages both first time and repeat visits to our site over that of the badge because:

- it distributes useful entry to our search capability beyond our own pages.
- it reminds those who host our widget that we provide a sophisticated link to their own site (the thumbnail).
- add external link to our site that contributes to page rank

### [edit] DoneDone

- widget javascript has been reviewed and deployed on AboutUs.org
- test has been written to ensure widget search form is compatible with site search form
- widget has been tested in blogging software that caused trouble for badge (see badge instructions)
- badge pages have been updated to explain widget installation too
- the widget fails elegantly if our widget server is down

### [edit] Steps to Done



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## DoneDone

A task may seem to be done when the desired result is first achieved. We allow ourselves this brief sense of accomplishment by reserving the word "done" for this state. However, to be "done done" means that all the little consequences of our work have been explored and addressed.

### [edit] Just Enough

A done done project meets the expectations of the people who envisioned/developed it. It adds all the value to the overall scheme of things that was intended. No more thought or effort is required for this project and the concerned people can safely move on.

Getting a project to done done usually requires some exploration with others. This may be the reason why people often fall short of this goal. One must step outside of their own sphere of influence and engaging the assistance of others.

But, when working with others, they often suggest additional functionality that might be useful but isn't strictly required to get the desired benefit from the current work. Don't do it. That is another project. Don't do it to yourself either. Tracking down the last details adds to the real cost of any project. Get good at getting these costs under control before volunteering additional functionality at further cost.

### [edit] Don't Forget

Here we will accumulate a list of things worth checking before you call a project done done. Our emphasis will be software projects though other projects probably have the same concerns.

- A great project will have an [AcceptanceTest](#). Start there.
- Will some sort of roll-out be required? Have you checked with everyone?
- Are all the pieces checked into source control? Will others be able to find them?

# Wiki as Application

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- Additional “interpretation” of wiki markup
- Add calculation, warehousing, access controls
- Expect wisdom to emerge from community ...

# Community

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- Group persuasion -- marketing buzz
- Distributing work -- delegating to your users
- The impossible -- impossible without community

# AboutUs Community

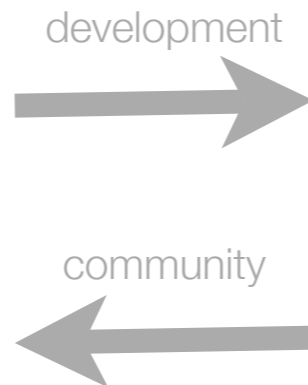
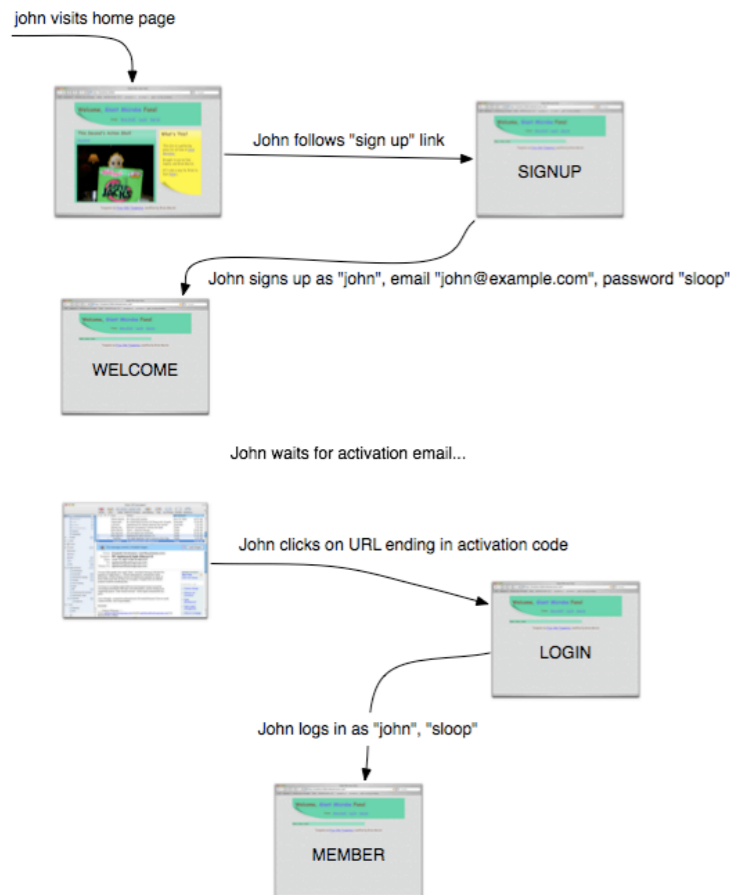
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- Any “us” with intention
- Most have domain with “about” page
- Host their “about us” pages within a community
- Wikipedia => *the present* => AboutUs

# How-It-Should-Work Community

- Can't tell what a program does for sure
- Agile says to know a program by exercising it
- Brian Marick's *Graffle* makes pictures be exercises
- Eclipse *Process Explorer* makes exercises public record



developer1 candidate foo-dev pmcmember developer2

1 2 3 4 5  
nominate

6 7 8 9 10 11 12  
save

13  
(result)

14  
variation

15  
variation

16 17 18 19 20  
variation

21  
(result)

22  
variation

23  
variation

24

48 49 50 51 52  
(result)

53

65  
please  
fill  
out  
ncrf

14  
nominated

15  
vote

25 26 27  
(result)

Project Committer - technology.foo

Nominate a new committer [\[revert\]](#)

Name: Karl Candidate

Email: candidate@example.com

Mailing List: foo-dev@example.com

Reason for Nomination: Karl is an excellent choice because he's fixed bug 12345 and [161000] and he answers his email promptly e.g. http://dev.eclipse.org/mhonarc/list His newsgroup bedside manner is also exemplary (http://dev.eclipse.org/newslists/n

save explore

from project\_committer/project\_committer

variation

41  
variation

45 46 47  
variation

55 56 57 58 59  
approve

60  
(result)

61  
variation

62

# Wiki Nature

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- Cooperation based on earned trust
- Roots in Agile where trust is new thing too
- Obvious reunification at project management level
- Subliminal message regarding changing nature of work
- Many opportunities to disrupt traditional assumptions

