Includes
Pre-testing Usability Review
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Project Overview

Between May and August of 2008, Ball State University’s Center for Media Design (CMD) conducted usability testing of several WordPress interfaces. Two rounds of testing were conducted with eye tracking at CMD’s New York facility, the Media Insight Center, with the first round in May and the second round in July. The project consisted of several phases, including:

1. Pre-testing Usability Review
2. Round 1 Testing (WordPress 2.5 and Test1515 prototype)
3. Round 2 Testing (Crazyhorse prototype).

This report outlines the project findings from each of these phases.
2.5 Usability Review

Prior to conducting test sessions, CMD staff conducted a usability review of the existing WordPress 2.5 administrative interface with the goal of identifying areas most likely to present usability challenges to test participants. The review resulted in a number of recommendations for improving the user experience that were considered “low-hanging fruit.”

Global
Reduce size of navigation fonts and page header to make better use of vertical real estate.

There is overarching ambiguity in the Write/Manage navigation, in that the entire administration panel is a management tool, and in editing content users are also writing. The move between write and manage during the process of post creation seems jarring.

Include Dashboard on the same level as Write/Manage/Design navigation.

Create a visual separation between identity/logout and help links.

Blog name should link to Dashboard.

Dashboard:
The Right Now box takes up too much space above the fold for information that is essentially a snapshot.

Combine Your Stuff with the Recent Comments box to make one Recent-themed box accessible above the fold.

Manage:
When editing a post or page under Manage, the screen label still shows "Write Post/Page." It should change to say "Edit Page/Post" when in the Manage section so that it provides another indicator that this has already been published/saved.

Write Post/Page:
Preview request should trigger save so most current version appears in preview.

Do not clear editor after Publish, allow continued editing.

Related Links are not really related, but shortcuts to other admin functions. Remove need for this by making more easily navigable.

"Keep this post private" and password protection are related and should be in closer proximity to each other to show users the privacy options.

Adding Media:
Replace Add Media icons with a single button, and display progressive menus/form fields based on file type that is uploaded rather than displaying all fields by default.

Make difference between uploading and embedding more clear in the media uploader.

Make the relationships between uploading media and the Media Library more clear.

Clarify the Gallery function.

Design Extras:
Give explanation of Snap Shots, as is one for hiding related links.

Widgets:
Show an example of each widget so users have an idea what they're getting before clicking add.

Swap the placement of Current and Available, and consider changing the name of Current Widgets to something more specific, such as "You Are Using These Widgets."

Comments:
Under Actions, add "Edit" link. Author's name should NOT be link to edit content. Author name should not act as title, since many times an author will leave multiple comments. These are two different object types altogether.

Detail View vs. List View is misnamed. List view shows all the actual details, it just removes the comment body. It's not a real list, but a collapsed view. Change labels to be more accurate.

Specific to WordPress.com:
WordPress tip that appears in yellow box either should be moved or have an option to be turned off.

Include Incoming links in the stats box instead of in separate module.

The What’s Hot box is not very hot if you have to scroll down that far to see any of it. This should try to at least start above the fold.

Help and Support are not distinct labels. Change labels to reflect link destinations.
Test1515 Prototype

The pre-test review was conducted to inform the development of a prototype meant to provide a comparative test protocol. Those recommendations that did not require extensive code restructuring were incorporated by the WordPress development team into a prototype known as Test1515. This version of WordPress did not make major changes such as restructuring the Write Post screen or resizing the navigation, but did include smaller interface adjustments such as:

- Remove the Right Now box
- Remove the WordPress tip (WordPress.com)
- Combine specific dashboard modules to bring content above fold
- Remove tab with link to Dashboard
- Simplify help links
- Initiate autosave on Preview of new post

The intent behind creating this prototype was to have each test participant use it after completing the first portion of the session using his/her own blog, to see if these small changes made an appreciable difference in usability.
Participants

While the WordPress development team worked on developing Test1515, CMD began recruiting participants and developing test protocols. CMD posted a screening survey to identify potential participants from those who responded to a call for volunteers on official WordPress blogs. In exchange for their time, participants were offered a $75 WordPress credit to be redeemed for WordPress merchandise and/or WordPress.com upgrade credits.

Participants were screened to achieve a balance between users of the hosted WordPress.com and the downloaded WordPress.org, as well as screening for additional criteria such as length and frequency of blog use, age, gender, technical savvy, employment, typical usage (text, images, videos, etc.), and platforms used.

12 participants were recruited, with an even split between .com and .org users. Blog usage among participants varied widely, ranging from relatively new personal bloggers who post a few times a week to power users with five or more blogs who post multiple times per day and/or manage blogs for others.

A majority of the participants frequently included media with their blog posts, and though most participants tended to use images only, two participants frequently posted videos as well. Most accessed the admin panel from both work and home, with a mix between PC and Mac users. About half also blogged regularly from a mobile device.

Ages ranged from 19-45, with most users falling in the mid-twenties to early thirties. Respondents to the call for volunteers were predominantly male, causing the participant pool to skew this way, with four female participants compared to eight men. However, as it is likely that the WordPress user base probably skews a little bit male, this ratio was considered acceptable.

About half the participants were employed in the interactive or technology industries. This was influenced by several factors, including the placement of the call for volunteers, the location of the test sessions, and participant availability.

Given the nature of the test sessions, which both included the use of unfinished prototypes, the ability to imagine how features might work when completed made this skew a benefit and kept sessions moving forward, while less savvy participants tended to get hung up by incomplete features.

Participants were also screened for the ability to read screen text from a 2-foot distance, willingness to have test sessions videotaped, and availability for the two rounds of planned test sessions.
Methodology

During the two rounds of testing, CMD obtained usage/behavioral data through a combination of the following three methods.

**Talk-aloud:**
Participants were encouraged to “think aloud” as they used each interface to give an idea of how they made the decisions reflected in their click paths. In addition, a moderator guided each session, observing participant responses and asking follow-up questions to obtain more complete information and feedback.

**Morae:**
CMD utilized Morae software to record screen activity and participant video, as well as allowing additional CMD researchers to follow the sessions remotely, marking tasks and adding comments to the video files. These notes, videos and timed task segmentation allowed for in-depth analysis of the user experience.

**Eye Tracking:**
The eye tracking equipment involved two cameras. One was tied to facial recognition software, while the other recorded the reflection from the eye. Software combined the two sets of information to give us a record of eye movement relative to the x,y coordinates of the monitor. This was the basis for outputs such as eye-tracking videos, gaze trails and look zone charts. Sample outputs are included in this report, as the large file sizes would make it unfeasible to include the full library in one document.

Why Eye Tracking?
The main reason to use eye tracking is to be more granular in understanding interface issues. For example, if you’re testing an interface and no one is clicking on a particular link, you would normally ask the participant if they saw the link or why they hadn’t used it. The problem is that our brains are clever and can rewrite even our very recent memory, so the person’s answer may be subjective. With eye tracking, you can know for sure. If they did fixate on the link but don’t recall seeing it, that might be a clue that the contrast of the link text is too low, while if they did not actually look at it, it might be an indication that the link placement falls outside of normal viewing patterns.
Round 1 Protocol

Round 1 test sessions lasted a little over an hour each, with each participant beginning by logging in to their own blog. After performing their usual maintenance tasks, the session moderator prompted them to complete additional tasks so that everyone would be recorded using all of the features included in the test, which included almost every screen of the WordPress admin panel. Participants were not required to complete tasks in any specific order, and the moderator used a checklist to ensure that features of high priority to the research were all accessed before participants logged out of their blogs.

After participants completed the first part of the protocol on their own blogs, they logged in to the Test1515 prototype, where they reviewed the revised screens and completed certain tasks to assess the effectiveness of the changes.

Participants were asked to rate all the features of the 2.5 admin panel for ease of use and usefulness on a scale of 1-5. In addition, each participant filled out a post-session survey that asked for assessments such as best three and worst three features, as well as asking participants what changes they would make to the admin panel if they were able. This information in conjunction with the usage patterns revealed through the Morae recordings and eye tracking data led to the recommendations for development of the Round 2 prototype.
Round 1 Findings and Recommendations

Rather than a formal report, findings from Round 1 testing were approached in a more action-oriented way to provide the most useful feedback to the development team. Standout results were outlined in an email along with recommendations for improvement in the second prototype, with the findings and recommendations explored in more depth through conference calls prior to the beginning of the Round 2 prototype development cycle.

**Overall:**
For the most part, participants felt WordPress 2.5 was easy to use, even when they had trouble finding something. The positive overall feeling for the application caused several participants to rate certain features/functions as easy even when the recordings (eye, screen, voice) showed them hunting through links and screens to find the options they wanted. This sense of emotional capital carried through all the sessions, making it clear that the participants are truly fans of the application, even when they encounter issues.

While there were several areas/features that did not score as well as the rest of the application, indicating that specific fixes targeted to these areas would improve the user experience, a larger issue became obvious as we observed the sessions. The navigational scheme currently in use caused people to have to go from screen to screen to find the links to screens they needed, and the number of navigational links on most screens proved overwhelming, so that users would scan over the words without really absorbing them. The Write/Manage paradigm also proved to be in contrast to how users actually think of their content, which is more object-oriented (i.e., Posts, Pages, Comments, Media, Links, Settings, etc.). A number of users tripped over themselves as they maneuvered between Write and Manage screens, looking for posts they were working on, drafts, or recently published items.

While the participants made it clear that they love WordPress, it also became clear through the sessions that the experience of using WordPress was sometimes frustrating, especially when waiting for new screens to load just to see the subnavigation options.

The participants had a generally favorable opinion of the 2.5 design in terms of visual appeal, but had low opinions of the structure and the amount of vertical scrolling it required.

The overall layout and structure of WordPress 2.5 was too much like a web site, and not enough like an application. A less rigid interface construction would enable users to complete tasks with less waiting and scrolling.

The small changes made in the Test1515 prototype were successful in making things clearer to the participants, but did not affect the overall feelings about ease of use. It was clear that while small things like labels and individual placement issues could improve clarity, a bigger shift in function and structure would be needed to address the problems caused by the current layout.

CMD recommended exploring a restructured navigational scheme for Round 2 testing.
Round 1 Findings: Dashboard

Most of the test participants said they did not spend much time on their Dashboards, either clicking directly to another screen or bookmarking a different screen to use as an admin entry point (Stats, Comments and New Post were most frequently identified).

The fact that timely information such as new comments, incoming links or news was largely hidden below the fold made it less likely that participants would see it. Most participants said that if they were able to choose their own Dashboard content and/or positioning of modules they would be more likely to pay attention to the Dashboard.

Participants felt the most useful elements on the current Dashboard were new comments, the link to Drafts (though would prefer direct links to individual drafts), and for WordPress.com users, the Stats snapshot.

**Recommendation:** Make the Dashboard module layout user-controlled, and consider amending modules for inclusion.

This typical user scanned the Dashboard but did not focus on any specific areas of information before clicking to another screen.
Round 1 Findings: Write Post

The Write Post screen caused a number of problems for participants. The main issue is that the layout is structured as a long column, which requires users to scroll up and down to create a post with metadata. Several participants forgot to add tags or categories because the modules were below the fold, and went back to add them after viewing the published post and seeing the lack of metadata. The scrolling requirement is interruptive; better use of the right hand column should be made for above-the-fold access to metadata fields.

Related Links in the right hand column were seen as unnecessary and not particularly related to the task at hand, and participants did not use them.

In the Publish module, the status dropdown was not understood. Participants thought they understood what the options meant, but not what would happen if they changed the menu choice. They were also not sure if the menu would replace clicking Publish.

Most participants did not notice the word count feature, though they said they wished they had known about it (too small/low contrast/poorly placed).

**Recommendation:** Adjust layout so that tags and categories are visible above the fold, make module drag and drop so that users can decide for themselves where each module should be located.

*These three screens show the progression of visual attention for one participant as she composed a post; the scrolling requirement meant the participant forgot to add metadata until she previewed the post and noticed the absence, a typical problem.*
Round 1 Findings: Comments

The layout for the Comments screen was seen as a step back from version 2.3. Participants across the board found it confusing that to edit the comment they needed to click on the commenter’s name, which used to be linked to the author rather than an edit screen. Additional action links found in the far right column were not in the natural gaze path, and when asked to mark a comment as spam or delete it, participants frequently scanned the area near the comment text looking for the links.

Several participants were using plugins to allow easier editing of comments, including inline editing of comment text. Most participants said they would prefer to be able to edit comments inline rather than going to a new screen to fix a simple typographical or spelling error.

**Recommendation:** Bring action links into natural gaze path, return to position below comment text.
Round 1 Findings: Media Uploader

For many participants, the Flash uploader didn't always work correctly, including crashing. Written cues did not indicate clearly enough the type of file upload/choices for method once in the uploader. Because of the top to bottom orientation of text, the distinction between uploading and embedding media was unclear.

The Gallery function was not understood. Participants were unsure if it was a record of current media additions, a Flickr-like album they could manipulate, or a segment of the existing Media Library. Because the Gallery did not appear anywhere else in the admin panel, they predominantly assumed it was inaccessible.

When ranked by participants for ease of use, adding media varied by method, with the easiest being from a web link, second easiest from the hard drive, and the media library ranking last (and scoring well below average).

**Recommendation:** Make the difference between uploading and embedding media more clear, provide more visible access to galleries for editing, simplify upload process.
Round 1 Findings: Smaller Issues

Other areas that did not perform well include link categories, media library, tag management and settings.

**Link Categories:** Participants felt this was too close in terminology to Links and Categories, and the difference between post categories and link categories not entirely clear to many.

**Tag management:** The structure of this screen was problematic, with almost no screen real estate devoted to actual tag management, and most of it devoted to white space. .Org users tended to use a plugin for this to get around the clunky design.

**Settings:** Participants tended to click on Manage, not noticing the Settings/Users navigation over to the right or thinking that they were going to “manage settings.” In addition, the time zone setting elicited comments from multiple participants. There seemed to be a lack of clarity around UTC in general, and for WordPress.com users, several were unsure how to have the correct time zone display without affecting their stats (specifically, they commented that stats ended the day at 8pm instead of midnight).

**Media Library:** All found this screen confusing. Most were able to identify how to manage items, but weren’t confident of what would happen as a result, being unclear on the difference between managing media from this screen instead of from a specific post. All expected access to more editing features to be available from this screen.

*Users tended to scan down the column of images rather than engage the full screen as a management tool.*
Round 1 Recommendations

As was mentioned earlier in this document, at the end of Round 1, CMD did not prepare a formal report, opting instead for working sessions to discuss the findings. In addition to a laundry list of small interface issues that presented simple fixes, such as changing comment author links, we were faced with larger issues such as the desire for user-determined hierarchies on long/scrolling screens, ambiguity in the Write/Manage navigation paradigm, and a disconnect between the act of adding media to a post and the ability to manage it.

What about that Test1515 prototype? Wasn’t that supposed to test some changes?

The Test1515 prototype was used by each participant after completing the regular test protocol with his/her own blog. Because the changes were often minor, participants did not have a strong reaction either way. In fact, though many acknowledged that certain aspects of the Test1515 prototype gave them quicker access to things (Dashboard links, amended help access, more prominent information on Dashboard, etc.), most ranked Test1515 on the same level as 2.5 in ease of use. This led us to believe that although there were numerous small changes that could be made to improve the usability of 2.5, as long as the basic structure remained, user perception would fail to change appreciably, and basic problems like the need for scrolling in post creation and having to load new screens to access subnavigation would remain. This led to the decision to create an experimental prototype for Round 2 rather than making changes within the 2.5 interface.

The guiding principles of the Round 2 prototype design were to maximize vertical space, reduce scrolling, increase access to navigation to reduce unnecessary screen loads, enable drag and drop on screens that would most benefit from user control, and redesign management screens to take advantage of natural gaze paths. Ultimately, the goal of the Round 2 prototype was to feel more like a web application and less like a web site.
Crazyhorse Prototype

Based on the recommendations provided by CMD at the conclusion of Round 1 testing, the WordPress team developed the Round 2 prototype, which was built on the Crazyhorse branch. Due to the extensive nature of the changes, which included a complete overhaul of the navigation system, new functions and numerous new layouts, Round 2 testing was scheduled to allow enough time for development so that the testing could be performed with a functional prototype rather than conceptual designs.

The prototype that was tested in Round 2 was largely functional, but retained a few conceptual areas that were basically snapshots meant to convey the new ideas to potential users. In addition, the focus was on user experience design and functional development, so the prototype did not receive any new visual design treatment. The analysis of Round 2 takes this into account. The prototype was finalized several days before Round 2 testing began, at which point the code was frozen and no further changes were made, to ensure that all participants would have access to the same experience during their use of Crazyhorse.
Round 2 Protocol

Participants were given access to Crazyhorse a few days before their sessions and were instructed to create posts, upload media and perform other average tasks at home so that when they came in they would be familiar with the new layout and functions. This was done so that their Round 2 sessions would track uses of a familiar application rather than explorations of a new interface, allowing us to compare the results of Rounds 1 and 2. The tests sessions again used Morae and eye tracking, and were divided into two parts: a task flow and a discussion. The task flow was designed to have participants engage each new feature or screen layout within the course of the task flow. The tasks, in order, were:

1. Log in to the Crazyhorse dashboard.
2. Access a draft post.
3. On your draft, delete one of the tags or categories.
4. Add an image to your post from the hard drive.
5. Preview your post.
6. Publish your post.
7. View all the images that have been uploaded to this blog.
8. Add an image to your Media Library for future use.
9. Access comments people have made on your blog.
10. Mark a comment as spam.
11. Change a word in the text of a comment.
12. Go back to your dashboard.
13. Use QuickPress.
14. Write a new post, not using QuickPress.

After these tasks were completed, eye tracking was discontinued and the remaining session time was used for discussion about each new feature and screen layout.

We used a 1-5 rating scale in the post-session surveys for ease of use and usefulness that was the same as the scale used during Round 1, but added a question for each item about which way participants preferred each feature: as it is in 2.5, as it is in Crazyhorse, or no opinion.
Round 2 Findings: Overview

Round 2 testing was an unqualified success, meaning that every new feature or design element provided us with actionable information that could be used to inform the next version of WordPress. Most of the responses to the discussion questions and post-session surveys indicated a strong preference for the individual Crazyhorse screen layouts and functions, while all participants preferred Crazyhorse over 2.5 overall. Eye tracking data showed that participants were able to locate screen elements more easily than in 2.5, with the exception of the Preview and Publish links on the Write Screen.

**Participant Comments:**
“I love it.” “It’s definitely better.” “It just seems to flow better.” “More organized.” “It’s more extensible.” “Easier to navigate.” “More efficient use of space.” “Seems more modern, friendlier.” “Looking forward to using some of these features on a daily basis!”

**The Best and the Worst:**
In the post-session surveys, participants were asked to choose the three best and worst features of the Crazyhorse prototype. The top choices for “Best Change” were Navigation, QuickPress, Media Uploader, Inbox.

There was very little negative feedback to the Crazyhorse prototype, and most of it was centered on one feature, the only feature to receive more than one vote for “Worst Change.” The persistent bottom bar on the Write Post screen was identified as the worst new feature by two-thirds of the participants.
Round 2 Findings: Navigation

The left hand navigation that allowed participants to expand and collapse navigation sections without loading a new page was universally popular. Participants thought it was much easier to find things, was cleaner looking, and would provide greater extensibility for plugins. The object-oriented organization was seen as a great improvement, with several people commenting that it would remove the common error of writing pages instead of posts. The ability to explore administrative options without leaving the current screen was seen as being especially helpful, and most participants commented that it felt like a better use of space.

**Participant Comments:**
“Better.” “Much cleaner.” “Easier to access.” “More room for my plugins.” “Easier to see where everything is.” “I won’t get lost.” “I had faster access to more items.”

**Response:** Every participant preferred Crazyhorse navigation over 2.5.
Round 2 Findings: Dashboard

The new Dashboard was considered more useful than the current model, and participants also saw a lot of opportunities for customization within the new framework. The Inbox concept was popular with most participants, though people who receive few comments did not know if they would need such a function. However, if reminders about pending drafts were included in the Inbox, all participants said it would be useful. Everyone thought QuickPress was a good idea, though participants were split on whether or not they would use it. Some only write long posts or media-rich posts, and thought themselves unlikely to use it. Those who write shorter posts or like to start drafts to keep track of ideas thought they would use it frequently. A number of people compared it to Twitter, and felt it would appeal to people who like to make fast and easy posts. The ability to decide which fields to be displayed would increase its utility, and participants most frequently asked for the ability to add media or hyperlinks. The enhanced stats module was seen as an improvement, but the display style of news left participants cold. Most would appreciate being able to determine placement and content of modules on their own.

Participant Comments:
“Much more useful.” “Love the addition of QuickPress.” “Great for jotting down a quick idea.” “Reminders about drafts in the inbox would be great.” “The extra stats are cool.” “I would check this when I logged in.”

Response: Every participant preferred Crazyhorse dashboard over 2.5, though almost all would prefer to have control over location and content of modules.
Round 2 Findings: Comments

Everyone thought it was much easier to edit and act on comments. Even though it didn’t actually take them that much longer, the fact that the links appeared in a more logical place made them feel like they were getting there faster and having to think less. Participants also appreciated the adjusted screen layout, especially moving the author metadata to the right and the clear link to the original post.

Participant Comments:
“It streamlines the process of reviewing comments.”
“It makes sense to have them below because then you can act on the comment right as you finish reading it.”
“This is much better.”

Response: Every participant preferred Crazyhorse comments screen over 2.5.

Typical gaze trails show that action links under the comment text are more readily seen by participants, since the natural gaze path is mainly focused in the comment area, not in the far right column where action links were located in 2.5.
Round 2 Findings: Write Post, The Good

Overall, the participants all liked the new Write screen. Everyone appreciated being able to decide which post elements were deserving of the best screen real estate. The drag and drop of modules was popular, and the two-column layout meant more fields above the fold. The “Media added to this post” was considered a good idea, though possibly in need of a better/shorter name. There was some question over whether deleting an image in this module would delete it from the post, or from the Media Library. Having access to post comments on this screen was viewed positively. The modules most frequently placed in the upper right by participants were Tags, Categories, Media Added to this Post, Privacy and Author. Participants who maintain multi-user blogs were the ones most likely to select the Author module.

Participant Comments:
“I won’t forget to add my tags before I publish now.” “Much better to have what I use near the top.” “I like being able to choose what goes where.” “This seems cleaner.”

Response: All participants preferred the general layout and functions of the Crazyhorse screen over 2.5.
The only significant problem with the new Write screen was the bottom bar that contained the elements of the former Publish module. This is an example of how a feature that was unsuccessful in terms of performance was actually successful in terms of the testing goals. Even though participants felt the design of it was not effective, it brought out comments about the desirability of having a persistent status module so they wouldn’t have to scroll up and down to get to the Publish button. If this element had not been included in the prototype, we might not have gained this information. All users, with many comparing it to an ad banner or browser chrome, overlooked the bottom bar. Most identified the color and placement as a problem, and felt it took up too much room. Almost all requested its return to the upper right. With the addition of drag and drop expandable modules, the reduction in page scrolling would be likely to keep the Publish module relatively persistent. Even when they were used to the bottom bar, many forgot to look there when asked to preview or publish their posts, as the eye tracking data confirms.

**Participant Comments:**
“**I thought it was browser chrome.**” “**Even when I knew it was there, I kept forgetting to look at it.**” “**I looked right past it a bunch of times before realizing it was there.**”

**Response:** Bottom bar performed poorly, but participants liked the idea of a persistent status module in general.
Round 2 Findings: Media Uploader and Library

Every participant felt the new uploader was a vast improvement, even though we tested with limited functionality. They said it felt more integrated with the Media Library, whose redesign they also felt was an improvement. Several were very interested in seeing how video and URL linking would be integrated, but felt the general structure was a positive improvement. The organization of the library made it easier to scan media collections and act on specific pieces of media. However, participants felt the advanced editing options were still too hidden, and consistent media addition/editing experience was desired.

**Participant Comments:**
“It’s so much easier.” “I love it.” “So much better.” “I would actually use this.” “Yes.”

**Response:** Every participant preferred Crazyhorse media uploader and library over 2.5.
Conclusions

The response to Round 2 testing made it abundantly clear that the revised navigational approach, new features and adjusted screen layouts of the Crazyhorse prototype were preferred by participants over the existing WordPress 2.5 administrative panel.

WordPress.org users raised the only concern, which was how the change would affect their plugins, a concern to be taken into account if WordPress chooses to develop the Crazyhorse design further.

More thought should be given to elements such as the dashboard inbox, the media added to this post module and the persistent publish module on the Write Post screen.

Overall, though, if the response of the test participants is any indication, the introduction of a new admin panel in the Crazyhorse style is likely to be successful with both new and experienced users.
Keep track of ongoing usability efforts at http://wordpress.org/development/