OurMichiganAve.org: A New Home

WRA415 Final Project Proposal

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Overview

In this course we've focused on providing design input for the further development of ourmichiganave.org (OMA), building on user research, rhetorical theory, and corporate practice. This is not a web authoring class—we've been trying to guide the next set of changes to the site, not make those changes ourselves.

However, as with many programming projects, OMA development is hindered by a lack of implementation resources, namely staff and time. Currently Matt Penniman is the main implementer, and he has other commitments. (I'm working with Matt on a project for another class, so I'm confident he's quite busy.) So while my first inclination as a rhetoric scholar would be to produce a theoretical piece for my final WRA415 project, I think my most valuable contribution would be to apply my skills as a software developer to the site and implement some of the suggestions that have emerged from our work this semester.

I'm proposing I implement some of the changes recommended by my design group (Group 4, Visual Identity / Home Page), plus a key piece of infrastructure required by some of those changes (support for sending email), with an eye toward accomplishing a key goal of our assignment: making the site feel like a "home" for users.

Project Outline

1. Preparation

    a) Set up development environment

        i. Install *git* and clone site sources (*done*)

        ii. Set up local testing sandbox: Ruby, Rails, etc (*in progress*)

        iii. Quick review of Ruby and Rails syntax and conventions

    b) Confirm design decisions with design team

    c) Confirm development plan with John and Matt

    d) Make proof-of-concept change to site to validate environment

2. Infrastructure development: outgoing email support

    a) Consult Liquid Web guidelines

b) Review outbound-email options for Rails applications

c) Implement generalized methods for sending email to one or multiple site users

3. Site changes

a) Rename navbar tabs and implement "wayfinder" highlighting of current tab (*for final step of Preparation stage*)

b) Remove banner image

c) Remove username

d) New login form

e) New registration page

f) Simple "welcoming" fixes for home page

g) Photo / text rotator for home page

Project Details

Preparation

With any serious software development project, and particularly those with multiple developers, it's crucial to use a development environment that controls changes to the product (in this case, to the OMA site). Developers need to be able to work independently, test their changes in a private version of the site, verify that their changes don't conflict with those of other developers, and promote them to the public site. They also need to be able to track who made what changes, and to revert changes that have unintended consequences. There are many ways of creating this environment, and software tools to realize it, particularly the change-management aspect.

When you being working on a project like this, then, your first task is to familiarize yourself with the development environment; that often includes installing and learning new change-management software. OMA is currently using a change-management package called *git* (developed by the Linux kernel maintenance team), which is somewhat different from other change management software I've used (such as Subversion, used by the TC491 class that developed the first version of the site). I've now installed *git* and confirmed that I can use it to get a local copy of the site's sources.

I also need to brush up on my knowledge of Ruby and Rails, the primary technologies on which the site is based. I've used them before, but not very recently, so I'm running through some refresher materials.

This stage of the project also includes finalizing the list of changes with both the design team and the product owners. Finally, I'll make my first change to confirm the end-to-end workflow—design, implement, test locally, merge with the current sources, promote to the public site, and test on the public site.

Infrastructure: Email Support

One major missing technological affordance for the current site is support for sending email to one user or a group of users from the site application. A number of the changes proposed by my design team require this feature. For example, a simple password-reset system typically works by sending an email message, containing a new, randomly-generated

password, to the user requesting the reset. And our proposal to eliminate the "username" user attribute used for login (in favor of logging in with email address and password) requires notifying existing users of the change, which means emailing them; we want to be able to automate that.

So I'm proposing one of my changes to the site be this infrastructure work. It doesn't actually change anything visible on the site, but it allows us to make a number of visible changes with significant usability benefits. This is a good example of how user-centered design can depend on elements which are not themselves design issues.

Site Changes

Having completed the preparation stage and implemented email support, I plan to begin implementing site design changes. I don't know how many of these can reasonably be accomplished by the end of the semester; but a central tenet of agile software development is to work in short, flexible iterations and try to avoid long-distance planning. So what I've done is listed a backlog of changes that I might make, and my plan is to implement features off the backlog as time permits.

Remove banner image

User research revealed that users do not like the banner-style image that appears on most OMA pages—the map portion looks like Google Maps and the site's mapping feature, but is not actually interactive; users tend to skip past the text on the right; and the banner as a whole looks like a banner ad, which users are trained to ignore. The banner also consumes valuable screen real estate. Our group recommends eliminating the banner, and relocating the incorporated text as necessary.

Remove username

Users are currently identified on the site by multiple attributes. They identify themselves to the site with a username and password, and to other users with a display name, and to the Internet community in general with an email address. Since many users don't want their email addresses displayed for everyone's consumption, and may want to associate their contributions with their real name or another public identifier, the display name is a useful profile component. The username, on the other hand, is redundant: email addresses are owned by users and so can serve as unique identifiers; they're easy to obtain; and nearly all web users already have at least one. So we propose eliminating the username entirely from the site.

This requires a number of changes:

- Ensure all existing users have email addresses and display names. Accounts without email addresses will be disabled. Those without display names will have the display name initialized to the current username.

- Update the database schema to remove the username column.

- Update all the website code to remove references to the username. The log in process will use the email address as a user identifier.

- Update the log in and registration forms and instructions.

- Send email to all existing users notifying them of the change.

New login form

Our design group proposed various updates to the login form on the home page, to simplify and clarify login and registration. We'll be proposing a refined version based on the feedback from our design critique; for this item, I'd be implementing it.

New registration page

We also proposed an updated registration page. The page would already have been changed to eliminate the username field, as described above; this item would include various design changes, the addition of some instructions, and possibly (time permitting) the introduction of the "profile picture" feature.

Simple "welcoming" fixes for the home page

Our group proposed a number of changes to the home page to improve the content and atmosphere to make it more welcoming. I need to discuss this with the group to make a specific proposal, but our ideas included things like:

- A subtitle under the site title to make the site's mission clearer at first glance

- New / updated text on the home page to clarify site mission and authorship

- Excerpts of recent content from the site (which would eliminate the "What's New" tab from the navbar)

Photo / text rotator for home page

One team in our group proposed a significant change to the home page, in the form of a rotation of photos and accompanying text explaining aspects of the Corridor project and the site. One photo / text pair would be selected at random each time the page was rendered, and there would be controls for cycling through the pairs.

This is relatively simple to implement but requires significant content generation, so while I could implement the underlying technology relatively quickly, I'd need to work with content developers to complete this feature.