

*EPICS ~ SE 283/383 ~ Spring 2014*  
*Engineering Projects in Community Service*



**Alex Lange**



**Dereck Miller**



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## Summary/Abstract

Our team took on a previous team's project involving the Immigrant Welcome Center (IWC). This project involved utilizing WordPress and all it has to offer to create a new website for IWC. The issue IWC has with their current website is that it is outdated. Offering only two languages to translate to, the IWC website is not as welcoming and accommodating to immigrants as it could be. The previous group's website, while nicer looking than IWC's current site, was lacking in a sufficient navigation bar, theme, and not all the pages were accessible through the website.

Our task was to therefore revamp the website, improve functionality and appearance, and to cater to the needs of both volunteers and immigrants. We began working on this by first laying out what we had in regards to content created by the first IWC team, what our requirements for how it was to be used and what information would be displayed, as well as how everything would connect. We created a visual sitemap and a Photoshop prototype of the website based on that sitemap. This proved to be crucial to progress on the site, and led us to switching to a new WordPress theme and editing and fixing several existing pages to make them more visually appealing and logical in their placement.

By the end of the semester, all pages were accessible through the website and the appearance and navigation were greatly improved and enhanced. The website is not ready to be published, however Team IWC's work definitely moved the project closer to that goal.

## Introduction

The Immigrant Welcome Center has requested construction of a new website such that:

1. Usability is enhanced for Immigrant audiences
2. Information is more easily accessed
3. Visual appeal is enhanced, and

4. Content is less text-heavy and more picture oriented.

The website is to be implemented using the Wordpress content management system so that modifications may be more easily made by non-technical persons.

## Objective

Our objective was to reconstruct the IWC website such that it satisfies client needs. Our client was the Immigrant Welcome Center (IWC). IWC is an organization that helps immigrants adjust to life in Indianapolis.

## Developers

- Alex Lange, Stephanie Pan, and Dereck Miller. Alex was the team leader and client liaison. Stephanie was the technical lead. Dereck was the design lead.
- Overall approach
  - Work on requirements iteratively and incrementally.
  - Specify system layout and behavior first. Then proceed to implementation.
- Glossary and terminology
  - IWC : Immigrant Welcome Center
  - CMS : content management system
- Organization of the report
  - [insert B.S. here]
  - [insert phrase indicating some level of organization > entire disorganization]

## Requirements Specifications

Our functional requirements were the immediate visual acknowledgements to the most important features of the IWC websites main page, being:

- Get Help from IWC staff or volunteers
- List of events and how to be involved
- Donate to IWC

Our non-functional Requirements included radically strengthened the internal layout of the site itself.

- Navigation through the site is much more efficient and user friendly
- Removed a lot of unnecessarily wordy content

- Combined and removed pages that were deemed excessive and redundant

Our assumptions coming into this project were that WordPress would be easily manipulated to look and function as we liked, and that PHP would not be very complicated to learn.

Our constraints were that, since we are not WordPress theme developers, it proved to be somewhat difficult to make the site look as we wanted. The CSS was difficult to manipulate at times due to how it could be specific only to certain selectors and sections. Lastly, PHP had proven to be difficult.

## **Design**

The user interface was web-based and was done on WordPress. Using WordPress allowed for changes to be made easily and effectively. This GUI featured a navigation bar, sidebars, and a template which affected the GUI and most of its functionality. The organization of everything was done by WordPress' system.

There is a main navigation bar visible on every page within the site. There are sidebars on most of the pages, containing links to other pages within that category.

## **Implementation**

The languages we used were HTML5, CSS3, and PHP, and coding was done as according to each language's standards. Comments were left in code, if needed, as according to those standards.

The implementation of the technical aspects was done mostly by Stephanie. Dereck implemented a lot of the design elements.

## **Project Organization & Management**

Alex Lange served as team leader, having taken an EPICS course before. He was also the liaison between our team and IWC. Alex was in charge of communicating with IWC and translating our questions, ideas, and work into terms that non-tech-savvy people can understand. He also kept the group organized and scheduled our meeting times.

Stephanie the HTML and CSS editing, as well as page editing and maintenance, menu creation, and template editing.

Dereck laid out a large portion of the internal structure of the website as well as improving the

visual appearance of many of the pages.

We met every Wednesday during our class time from 3:50 to at least 5:05. We communicated and planned in person, through text, or through the Google Drive. In the beginning, we struggled with where and how to start. This conflict was resolved when we decided to just work where we could and see where that took us.

Technologies we used included WordPress and Google Drive, which enabled us to collaborate online at the same time.

## **Weekly Status Reports**

### **WEEKLY STATUS REPORT (WSR)**

**2-17-2014**

**Alex Lange, Stephanie Pan, Dereck Miller, Panos Linos**

**FROM: Alex Lange**

**SUBJECT: Status report for week 2-10-2014 - 2-17-2014**

**I. RED FLAGS:**

**A. No critical issues exist at this time.**

**II. ISSUES:**

**A. No pending problems exist at this time.**

**III. ACCOMPLISHMENTS:**

**2-12-2014**

- 1. Initiated email conversation with client.**
- 2. Set meeting time with client for 4:00pm - 5:00pm, Monday 2-17-2014, at Butler University starbucks.**
- 3. Tasked each team member with completing 3 documents for 2-17-2014 meeting.**

**B. 2-13-2014**

- 1. Changed location of 2-17-2014 meeting to Fairbanks floor 1 conference room.**
- 2. Initiated email contact with Sam Hacke.**
- 3. Initiated email contact with Nate Partenheimer.**

**C. 2-14-2014**

1. Sent information to Nate Partenheimer via email.

**D. 2-17-2014**

1. Gained temporary access to wordpress website, to be used for 2-17-2014 meeting.
2. Gained on-campus access to project files.

**IV. ACTION ITEMS FOR FOLLOWING WEEK (2-17-2014 - 2-24-2014):**

- A. Meet with client, 2-17-2014, 4:00pm - 5:00pm, at Fairbanks conference room (Alex, Stephanie, Dereck).
- B. Check with Amy Aldridge on 2-17-2014 that conference room has been booked (Alex).
- C. Ensure access to wordpress website by 2-17-2014 for 2-17-2014 meeting (Alex).
- D. Ensure access to wordpress files by 2-24-2014 (Stephanie).
- E. Complete the 3 documents for 2-17-2014 meeting (Alex, Stephanie, Dereck).
- F. Complete a requirements document by 2-24-2014 specifying all requirements for new website (Alex, Stephanie, Dereck).
- G. Complete a progress document by 2-24-2014 specifying current completion progress for each requirement (Alex, Stephanie, Dereck).
- H. Complete gantt chart by 2-24-2014 specifying plans for designing for and implementing requirements.

**WEEKLY STATUS REPORT (WSR)**

**2-17-2014**

**Alex Lange, Stephanie Pan, Dereck Miller, Panos Linos**

**FROM:** Alex Lange  
**SUBJECT:** Status report for week 2-10-2014 - 2-17-2014

- I. RED FLAGS:**
  - A. No critical issues exist at this time.**
- II. ISSUES:**
  - A. No pending problems exist at this time.**
- III. ACCOMPLISHMENTS:**
  - A. 2-12-2014**
    - 1. Initiated email conversation with client.
    - 2. Set meeting time with client for 4:00pm - 5:00pm, Monday 2-17-2014, at Butler University starbucks.
    - 3. Tasked each team member with completing 3 documents for 2-17-2014 meeting.
  - B. 2-13-2014**
    - 1. Changed location of 2-17-2014 meeting to Fairbanks floor 1 conference room.
    - 2. Initiated email contact with Sam Hacke.
    - 3. Initiated email contact with Nate Partenheimer.
  - C. 2-14-2014**
    - 1. Sent information to Nate Partenheimer via email.
  - D. 2-17-2014**
    - 1. Gained temporary access to wordpress website, to be used for 2-17-2014 meeting.
    - 2. Gained on-campus access to project files.
- IV. ACTION ITEMS FOR FOLLOWING WEEK (2-17-2014 - 2-24-2014):**
  - A. Meet with client, 2-17-2014, 4:00pm - 5:00pm, at Fairbanks conference room (Alex, Stephanie, Dereck).**
  - B. Check with Amy Aldridge on 2-17-2014 that conference room has been booked (Alex).**
  - C. Ensure access to wordpress website by 2-17-2014 for 2-17-2014 meeting (Alex).**
  - D. Ensure access to wordpress files by 2-24-2014 (Stephanie).**

- E. Complete the 3 documents for 2-17-2014 meeting (Alex, Stephanie, Dereck).
- F. Complete a requirements document by 2-24-2014 specifying all requirements for new website (Alex, Stephanie, Dereck).
- G. Complete a progress document by 2-24-2014 specifying current completion progress for each requirement (Alex, Stephanie, Dereck).
- H. Complete gantt chart by 2-24-2014 specifying plans for designing for and implementing requirements.

#### **WEEKLY STATUS REPORT (WSR)**

**3-3-2014**

**Alex Lange, Stephanie Pan, Dereck Miller, Panos Linos**

**FROM: Alex Lange**

**SUBJECT: Status report for week 2-24-2014 - 3-3-2014**

- I. **RED FLAGS:**  
No critical issues exist at this time.
- II. **ISSUES:**
  - A. Group is not accomplishing enough work per unit time.  
Members have not been assigned with tasks on a regular basis.
- III. **ACCOMPLISHMENTS:**  
None. It was a busy week for group members and action items were postponed.
- IV. **ACTION ITEMS FOR FOLLOWING WEEK (2-3-2014 - 3-10-2014):**
  - A. Ensure receipt of client's "site map" (Alex)
  - B. Create a schedule for the remainder of the semester (Alex)
  - C. Assign page design to group members (Alex)
  - D. Complete design for assigned pages (Alex, Stephanie, Dereck)

#### **WEEKLY STATUS REPORT (WSR)**

**3-17-2014**



**Alex Lange, Stephanie Pan, Dereck Miller, Panos Linos**

**FROM: Alex Lange**

**SUBJECT: Status report for week 3-3-2014 - 3-9-2014**

- I. RED FLAGS:**
  - A. No critical issues exist at this time.**
  
- II. ISSUES:**
  - A. Group is not accomplishing enough work per unit time.**
  - B. Members have not been assigned with tasks on a regular basis.**
  
- III. ACCOMPLISHMENTS:**
  - A. Created a “site map”.**
  
- IV. ACTION ITEMS FOR FOLLOWING WEEK (3-17-2014 - 3-24-2014):**
  - A. Refine “site map” (all)**
  - B. Create page designs (all)**
  - C. Advance implementation (all)**

**WEEKLY STATUS REPORT (WSR)**

**3-24-2014**

**Alex Lange, Stephanie Pan, Dereck Miller, Panos Linos**

**FROM: Alex Lange**

**SUBJECT: Status report for week 3-17-2014 - 3-24-2014**

- I. RED FLAGS:**
  - A. No critical issues exist at this time.**
- II. ISSUES:**
  - A. No issues exist at this time.**
- III. ACCOMPLISHMENTS:**
  - A. Created Functional Requirements Document.**
- IV. ACTION ITEMS FOR FOLLOWING WEEK (3-24-2014 - 3-31-2014):**
  - A. Refine Objectives Document (Alex)
  - B. Prioritize Objectives (Alex)
  - C. Prepare Recommendations (Alex, Stephanie, Dereck)
  - D. Refine Site-Map for Current System (Dereck)
  - E. Meet with Client on Friday to review Objectives, Prioritization and Site-Map (Alex, Stephanie, Dereck)

**FROM:** Alex Lange  
**SUBJECT:** Weekly Status Report (3-24-2014 thru 3-30-2014)  
**RECIPIENTS:** Alex Lange, Stephanie Pan, Dereck Miller, Panos Linos  
**Current Date:** 3-31-2014

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- I. RED FLAGS:**
  - None
- II. ISSUES:**
  - None
- III. ACCOMPLISHMENTS:**
  - A. Refined Objectives Document.
  - B. Arranged Client Meeting for 4-7-2014
  - C. Switched to Responsive Template
- IV. ACTION ITEMS FOR FOLLOWING WEEK:**
  - A. Get feedback from Client regarding Objectives (also priority)
  - B. Accomplish top-priority Objective(s)

**FROM:** Alex Lange  
**SUBJECT:** Weekly Status Report (3-31-2014 thru 4-6-2014)  
**RECIPIENTS:** Alex Lange, Stephanie Pan, Dereck Miller, Panos Linos  
**Current Date:** 4-7-2014

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- I. RED FLAGS:**
  - A. None
- II. ISSUES:**
  - A. None
- III. ACCOMPLISHMENTS:**
  - A. None
- IV. ACTION ITEMS FOR FOLLOWING WEEK:**
  - A. Create photoshop document for each intended page that depicts the initial state

**FROM:** Alex Lange  
**SUBJECT:** Weekly Status Report (4-7-2014 thru 4-13-2014)  
**RECIPIENTS:** Alex Lange, Stephanie Pan, Dereck Miller, Panos Linos  
**Current Date:** 4-14-2014

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- I. RED FLAGS:**  
None
- II. ISSUES:**  
None
- III. ACCOMPLISHMENTS:**  
A. None
- IV. ACTION ITEMS FOR FOLLOWING WEEK:**  
A. TBD based on Client Meeting

## USER MANUAL FOR ACCESSING THE WEBSITE

1. Email Nate Partenheimer to get permission to access the IWC WordPress website, as it is located on Butler's servers. [npartenh@butler.edu](mailto:npartenh@butler.edu)
2. Access the site at [iwc.butler.edu/wp-admin](http://iwc.butler.edu/wp-admin)
  - a. Nate should give the the username and password. Currently our username is "admin" and our password is "butler". The password will likely be reset after our semester ends though.
  - b. You can access the site's files at \\epics\iwc while on campus and connected to Butler's wifi. You can access the server through putty or a Mac Terminal to ssh to [epics.butler.edu](http://epics.butler.edu)
  - c. Our group primarily used the WordPress website itself, and only accessed the files when needing to change something like images.
3. IWC's dropbox: <https://www.dropbox.com/home/IWC>
  - a. You will need to get permission from Terri to view the files, or you can email Stephanie Pan at [span@butler.edu](mailto:span@butler.edu) to get access.

If you have never used WordPress before, then you had better familiarize yourself with it, bub. The previous group were using the Travelify Child theme. You can see what they did by going to Appearance → Themes. Find the theme and hit "Activate." This doesn't destroy anything that we or you currently have up. To go back to our theme, find Vantage and hit "Activate." Yay. God's in his heaven, all's right with the world.

Devin did all of the PHP stuff, and Stephanie doesn't understand child themes very well/ at all, so

please refer to Devin if you have questions about child themes. We are pretty sure that all of the changes we've made to the Vantage theme should actually be in a Vantage-child theme.

## **Future Work**

Things that need to get done:

1. Move everything over to IWC's site, somehow.
2. Get all forms working. The Donate form needs to be linked to Etapestry. The others to an IWC email address. This requires PHP. Devin says that Javascript is needed to verify fields and when specific options are selected.
3. IWC is in love with the Welcoming Center for New Pennsylvanians <http://welcomingcenter.org/> . If you find more ways to copy that website's design and put it into IWC's, it will likely be greatly appreciated.

## **References/bibliography**

WordPress, Jennifer from IWC, Terri Morris from IWC