Homework 2
Evaluation of GMU SIS (Patriot Web)
Fall 2007

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SWE 432
Design and Implementation of Software for the Web

“Make everything as simple as possible, but not simpler”
– Albert Einstein
Summary

• Student view differs from faculty view
• This evaluation is based on the faculty view

• Patriotweb is a “web-enabled legacy system”
  – There was an old system based on an ancient database
  – A company was hired to add a web interface
  – No changes to the underlying DB or software
  – Existing queries were used, without changing or adding

Avoid “web-enabled” projects at all costs!!!
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Priority</th>
<th>Goals</th>
<th>Achieves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learn</td>
<td>2</td>
<td>High</td>
<td>Moderate</td>
</tr>
<tr>
<td>Speed</td>
<td>1</td>
<td>V. High</td>
<td>Low</td>
</tr>
<tr>
<td>Errors</td>
<td>4</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>Retention</td>
<td>3</td>
<td>High</td>
<td>Moderate</td>
</tr>
<tr>
<td>SS</td>
<td>5</td>
<td>Low</td>
<td>Low</td>
</tr>
</tbody>
</table>

*For me, this UI fails on 4 of 5 criteria*
Splash Screen

• Splash screen (https://patriotweb.gmu.edu/) has no useful purpose
• Login screen (https://patriotweb.gmu.edu/pls/prod/twbkwbis.P_WWWLogin) is simply a tiny form – on a big screen
• Splash screen and login screen should be merged
• An entire screen just to login slows the user down
  – No benefit to any other criterion
Always Remember

- Some sites (Yahoo Mail, Hotmail, banking sites, and patriotweb) instruct the browser to never allow your password manager to retain your information
- If you use a shared computer, this will increase security
- If you are the sole user of your computer, then it takes unnecessary time
- “Always Remember” is a Mozilla Firefox extension that instructs your browser to ignore the web site’s instructions to not save passwords
  - Must restart Firefox
  - Conflicts with mail.gmu.edu
Main Screen

- Main screen is a 4-item menu – with lots of useless junk
- The menu appears twice
- The order of items on the top is different from the list in the middle
- The choice labels are not clear
- The descriptions are very confusing
- The colors are nonstandard – not obvious what is “clickable”
User Analysis

What are the most common functions that faculty use?

1. Getting rosters
2. Assigning grades
3. Getting pay stubs
1. Getting Pay Stubs

- Not under Financial Information
- After much searching – under Employee Services
- To get to pay stub:
  1. Splash screen
  2. Login screen
  3. Menu screen (no title)
  4. Choose “Employee Services”
     - Note the order of this menu ... most common item is pay stub
     - I don't even have “time off”
  5. Choose “Pay Information” (fifth entry)
     - Another 4-item menu .. not clear ...
1. Getting Pay Stubs (cont)

6. Choose “Pay Stub” (third entry!)
7. Choose a year from a drop-down
   1. Should be combined with previous screen
   2. Should default to current without making an explicit choice
   3. Four choices - should be a radio box
   4. Must explicitly choose, THEN click “Display”
8. Another menu of up to 24 items!
9. Choose item on top of the list
1. Getting Pay Stubs *(summary)*

- Total of 9 screens, 1 or 2 clicks per screen

- Better design
  - Merge splash and login (screens 1 & 2)
  - Merge menu 3 & 5, using javascript for submenu
  - At step 6, show the current pay stub and add menus for other options
  - (9 steps becomes 3)

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I don’t even bother looking at my pay stubs anymore

... 

I just look at my bank deposits
2. Getting a Class Roster

• “Faculty & Advisor Services”
  – Order of menu is wrong – this should be first
  – “View the Terms ...” should definitely not be first

• Terminology:
  – What is “CRN” ?
    • “Summary” versus “Detail” ?
  – Four items (“Detail Class List”, “Summary Class List”, “Detail Wait List”, “Summary Wait List”) sound a lot alike

• “Final Grades” should be “Enter Final Grades”
2. Getting a Class Roster (cont)

- “Detail class list” shows contact info for each student
  - Most of the time we want “Summary”
- “Summary Class List” screen
  - NO USEFUL INFORMATION without scrolling - wasted space & time
  - Irrelevant information:
    - ID
    - Reg Status
    - Level
    - Credits
    - Midterm
    - Final
    - Grade Detail
  - Missing useful information: Email!
2. Getting a Class Roster (cont)

• A useful functionality would be to either copy and paste or save the names into a spreadsheet
  – This is very inconvenient with the UI
  – I copied and pasted the entire page into a text editor, deleted extra information, then copied again to my spreadsheet

• Getting email addresses?
  1. Scroll to bottom of the page
  2. Click on “Display Email List”
  3. It's not displayed! Is this an error?
  4. Scroll down to the bottom - a textbox with a comma separated list of email addresses!
    • Alternate formats would be a clickable email link, a new column
    • Not convenient to associate names with emails
    • Why not include email as a default?

• “Return to previous” goes back to non-email screen ...
• “Return to previous” again goes back to screen with email ... a loop!
3. Entering Grades

- "Select Term" screen
  - Should not use an entire screen
  - Drop down for 5 elements should be a radio box
  - Should default to current without making an explicit choice

- "Select a CRN" screen
  - Should not use an entire screen
  - Dropdown for 7 elements should be a radio box
  - Should default to most recent without making an explicit choice

- On the **third screen**: The "Final Grade Worksheet" is **unavailable**

- No return to "Faculty & Advisor Services", only "back"
3. Entering Grades – Violations

• Tell users when choices are not available immediately
  – The “Faculty & Advisor Services” screen should make “Final Grades” unavailable

• CRN and Select Term screens set “state” in the UI
  – These should be set in radio buttons or click-boxes, not in a separate-screen menu

• Should be merged with the “Faculty & Advisor Services” screen
Conclusions

• Programmers obviously did not consider users, user needs, or usability principles
• Ultimate in “inside out” approach – the internals of the system existed for many years
• Entering grades requires manipulating a pull-down for each student – slow and error-prone
• The old paper system was faster, easier to learn, had fewer errors, was easier to remember semester to semester, and was much less annoying…