



PROPOSED REVISIONS FOR THE NJIT WEBSITE

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INTRODUCTION

NJIT is currently in the process of updating its website, <http://www.njit.edu>. During any website upgrade it is beneficial to conduct periodic evaluations to examine the progress to date and establish goals and priorities for the remaining development period. The students of the Spring 2007 PTC 601 class conducted a heuristic evaluation using Jakob Nielsen's Ten Usability Heuristics. Common heuristics among classmates were then compiled and rated according to Nielsen's Severity Ratings for Usability Problems. The purpose of this report is to provide the methodology and results of this evaluation so that the appropriate web developers and project managers can utilize the findings to plan and prioritize the outstanding development tasks.

METHODOLOGY

Students used the following usability heuristics to conduct a systematic evaluation of the NJIT website.

1. Visibility of system status
2. Match between system and the real world
3. User control and freedom
4. Consistency and standards
5. Error prevention
6. Recognition rather than recall
7. Flexibility and efficiency of use
8. Aesthetic and minimalist design
9. Help users recognize, diagnose, and recover from errors.
10. Help and documentation

Common results were then compiled and assigned severity ratings, using the following severity ratings.

- 0 = I don't agree that this is a usability problem at all
- 1 = Cosmetic problem only: need not be fixed unless extra time is available on project
- 2 = Minor usability problem: fixing this should be given low priority
- 3 = Major usability problem: important to fix, so should be given high priority
- 4 = Usability catastrophe: imperative to fix this before product can be released

Severity rating is based on a combination of three factors:

- The **frequency** with which the problem occurs: Is it common or rare?
- The **impact** of the problem if it occurs: Will it be easy or difficult for the users to overcome?
- The **persistence** of the problem: Is it a one-time problem that users can overcome once they know about it or will users repeatedly be bothered by the problem?

RESULTS

The following is a compilation of usability issues identified by PTC 601 students. Issues are listed in the order of importance, from highest to lowest priority. Nielsen's severity rating numbers are included as well for your reference. Note that severity rating number four was used, even though the product has already been released. This is intended to represent the nature of the severity, rather than prevent the release of the website.

HIGH PRIORITY

Severity Level 4 - Usability catastrophe: imperative to fix this before product can be released

Layout of pages and navigational menus are inconsistent

Home page and sub pages are inconsistent. Home page, Student Life, and Admissions are formatted in the updated style, while the About, Academics, Research, Lifelong Learners, Athletics, News, and Giving sub pages are not updated. This discrepancy is due to the fact that NJIT is currently in process of updating all pages. However, priority of updates should be reconsidered to give priority to pages that are intended to attract students. For example, the Academics page and the Lifelong Learners page should have been given priority to receive the updated format over a page like Student Life.

Even among the updated pages, however, the home page is wider than the updated sub pages for Student Life and Admissions. The updated format should be consistent across all pages.

Menus on the home page are different from sub pages. For example, Business Resources is a menu item on most sub pages but is not on the Home page menu or the News page menu. Careful attention should be given to these menus during the update process to avoid confusing users.

Return navigation on pages that launch within the same window are missing

Other NJIT sites and PDF files that open within the same window as the link do not provide an easy means for users to return back to the main NJIT site or previous page. Users may easily close the entire site even when attempting to only close the newly launched site or PDF file. This can be remedied by either adding clear navigation on the sites linked to or by launching these link types in new windows. The latter of the two recommendations may be easier to implement and adheres to standard web conventions.

One particular page, the Open House Schedule page, launched from the CPE division, does not even allow the user to use the Back button in the browser to return to the previous page. This type of navigation issue is particularly frustrating to users and should be eliminated immediately.

MEDUM PRIORITY

Severity Level 3: Major Usability Problem: important to fix, so should be given high priority

Prospective students' needs are not being addressed

As mentioned earlier, pages that attract prospective students should be given priority over other pages. In addition, the *Info For* menu on the right side of the screen on the updated pages includes links for current students and parents, but not for prospective students. This appears to be an oversight in the design process as one of the main objectives for a university website should be to attract new students. This was given a rating of four because it affects the design of the already approved updated formats and should be addressed immediately.

No help available

The site (even pages with the new design) does not contain a link to a help system or FAQ section. Web users often require assistance through online help systems and Frequently Asked Question sites. Although the new design of the website is a more intuitive improvement over the old design, users will still need help and this should be addressed.

LOW PRIORITY

Severity Level 2: Minor usability problem: fixing this should be given low priority

Contact Us information limited on sub pages

Although *Contact Us* is prominently featured on the pages that use the new design, other pages do not. This is important, but given that it is appropriately addressed in the pages utilizing the new format, it does not necessarily need to be addressed on pages that use the old format.

Use of NJIT logo not good substitute for “Home”

Many evaluators reported that using the web standard of clicking the NJIT logo to return to the home page was neither intuitive nor sufficient. In some cases (e.g., on the page <http://catalog.njit.edu>), the NJIT logo did not link back to the home page at all. Using the convention of “Home” is recommended and does appear on pages with the new format. Because this is being addressed on the new format, it is not necessary to address this on the pages with the old format.

RECOMMENDATIONS

Usability is paramount to a website’s success. If a website is frustrating to use or does not reflect the organization behind it, it may discourage users from considering NJIT as an organization that can satisfy their needs. Issues listed in this report should be addressed in order of priority, from highest to lowest. As the site is still undergoing updates, any revisions should only be made to the pages in the new format. It is not prudent to expend resources to improve pages in the old format.

RESOURCES

Nielsen, J. Referenced March 27, 2007 from http://www.useit.com/papers/heuristic/heuristic_list.html

Nielsen, J. Referenced April 7, 2007 from <http://www.useit.com/papers/heuristic/severityrating.html>