

# **Heuristic Evaluation of the Interdepartmental Program in Classical Art and Archaeology Web site**

Team Web Curators:  
Patrick McDonnell  
Jessamyn Smallenburg  
Jacek Spiewla  
Brian Wilson

Evaluation of Systems and Services  
SI 622 Section 02  
Dr. Mark Newman  
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## I. Executive Summary

The University of Michigan (U-M) Interdepartmental Program in Classical Art and Archaeology (IPCAA) has expressed interest in redesigning their web site in the near future. As part of U-M's School of Information course *Evaluation of Systems and Services*, Team Web Curators is conducting an on-going evaluation of IPCAA's web site to critique its functionality, usability, aesthetics, and to offer re-design recommendations.

During the week of February 8, 2009, our team conducted a heuristic evaluation of the IPCAA web site. As a group, we developed six tasks that a typical user would perform on the IPCAA web site (Appendix Table I). Then, using a set of industry-accepted usability heuristics, or "rules of thumb," as design guidelines (Appendix Table III), each team member performed the tasks. During this process, our team found identified approximately 50 heuristic violations on the web site. We aggregated these violations and ranked their severity to reveal the web site's major issues.

From the heuristic evaluation results, we conclude that high severity violations primarily address poor information organization, lack of efficiency-boosting shortcuts and enhancements in commonly used features, and the need for recognition rather than recall when using the IPCAA web site. The nine major issues include:

- Ph.D. program requirements are difficult to locate
- Lack of a Ph.D. program requirements check list
- Ph.D. program requirements not found at the top level of the Current Student web page sub-section
- Course details are difficult to locate
- Current fieldwork is difficult to locate
- Link to Museum Studies Program is broken
- The contact information for specific program staff is not available
- IPCAA Student Handbook downloadable only as a Word document
- Graduate student fellowships and awards list unorganized

To resolve these issues in future redesign activity, we recommend the following plan of action:

- Create a Ph.D. degree requirements page that consolidates all sources of program requirement planning information
- Prominently display current and past fieldwork on their own pages, and enhance them with interactive features
- Add helpful course descriptions and links to the course listings page
- Clearly identify e-mail recipients on the "Contact Us" page
- Organize the graduate student funding source page alphabetically
- Ensure no broken links exist on any page
- Improve downloadable document compatibility by using PDF file format

## II. Client Description

IPCAA<sup>1</sup> is a doctoral program at U-M centered on the arts and material culture of the ancient Mediterranean and Near Eastern worlds. The program is formally sponsored by the Art History and Classical Studies departments and is located in the Kelsey Museum of Archaeology on U-M's Central Campus. IPCAA is consistently ranked as one of the top classical archaeology programs in the country. The program and its web site serve several target audiences, including prospective and current graduate students, researchers, faculty members and visiting scholars.

The web site follows a tree-like organizational structure that branches out from the home page. The web site features a primary navigation menu at the top of each page that links to ten secondary pages: About IPCAA, Program Overview, Fieldwork and Museum Opportunities, Prospective Student Information, Current Student Information, Faculty and Staff Directory, Sponsoring and Cognate Units, U-M Resources, FAQ, and Contact Us. The secondary pages have sub-menus that navigate the web site user to more detailed sub-pages of the web site, where one has the opportunity to browse more specific topics pertaining to the program.

The IPCAA web site maintains a strong thematic identity. It has a blue color theme and a number of pages containing photos of archaeologically significant artifacts and scenes. Each page is adorned with IPCAA's distinctive logo of a sea-monster with dolphins, and the web site explains that the logo's "hybrid" quality represents the interdisciplinary nature of the program.

## III. Goals

The primary goal of our heuristic evaluation is to identify usability problems on the IPCAA web site, analyze their severity and importance, and recommend potential fixes.

From an individual standpoint, our goal is to learn and practice the heuristic evaluation method using Nielsen's (1994) work. Through this, we aim to develop our critical evaluation skills to improve our ability to find often overlooked usability problems. As a team, we hope to learn from each other's evaluation techniques by comparing individual results.

## IV. Procedure

Nielsen's (1994) heuristic evaluation procedure provided the model to which we referred throughout the heuristic evaluation of the IPCAA web site.

### **Step 1: Pre-evaluation coordination**

Drawing from work in persona and scenario development conducted in the earlier stages of the IPCAA web site evaluation, our team developed six tasks that a typical

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<sup>1</sup> <http://www.umich.edu/~ipcaa/>

user, or persona, would perform on the IPCAA web site (Appendix Table I). The tasks were developed with the persona's goals in mind.

**Step 2: Evaluation**

While performing the tasks, each evaluator (team member) identified all heuristic violations that he or she encountered, using the reference heuristics (Appendix List 1) as guidelines.

**Step 3: Severity Rating**

Individually, evaluators ranked each heuristic violation on a standardized severity rating scale from 0-4 where zero represents no usability problem and four is a major usability flaw (Appendix Table II).

**Step 4: Debriefing**

The data were collected into individual evaluation tables (Appendix Table IV), compared for redundancy, and then combined into a single table (Appendix Table III).

## V. Findings

During the course of the heuristic evaluation, we identified approximately 50 heuristic violations on the IPCAA web site. Among those identified were major and minor usability issues. Our team chose to discuss nine major issues that received the highest severity ratings. These are considered major shortcomings, and should be addressed in any redesign effort. In addition, there are a number of less critical usability issues that should be corrected during redesign, or possibly during an intermediate revision of the current design. Minor issues and average severity ratings for all violations are in Appendix Table III.

The four members of our team arrived at this project with a range of educational backgrounds, intellectual orientations, and graduate school programs, and our perceptions are therefore varied. The severity ratings discussed in this report are averaged values from our individually conducted heuristic evaluations, and we all concur that these values are reflective of our combined ideas. For individual evaluator severity scores, see Appendix Table IV.

As a first-pass filtering of the evaluation results, individual severity rankings for each heuristic violation for each team member was averaged to produce a single value. The frequency of severity rankings per team member is shown in Figure 1. The graph shows both a similarity and diversity of opinion within the four-person evaluation group.

In Figure 2, the frequency of occurrence of heuristic violations shows that the greatest number of heuristic issues related to help and documentation, as well as flexibility and efficiency of use. In Figure 3, we see the greatest number of severities between 2 and 3, which indicates that there was a balance of major and minor usability issues.

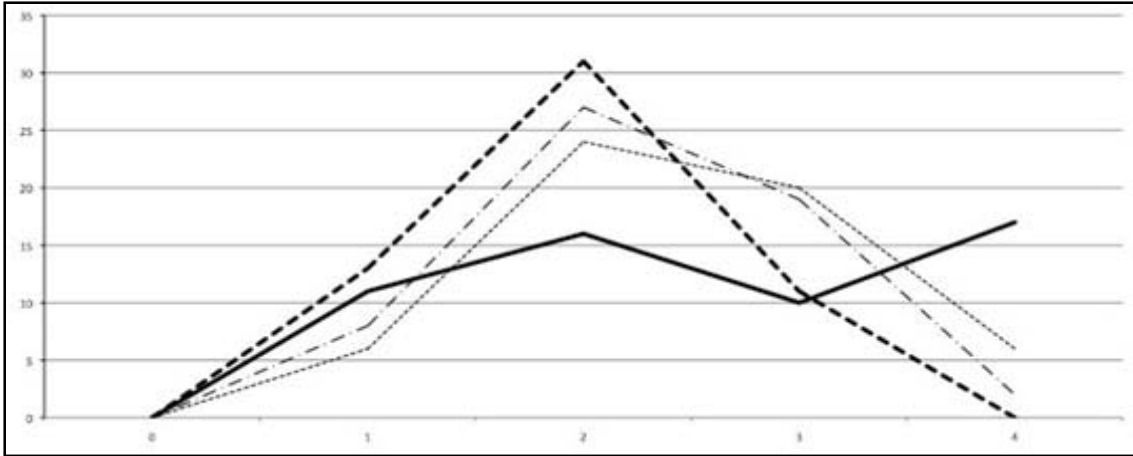


Figure 1: Severity frequency per team member

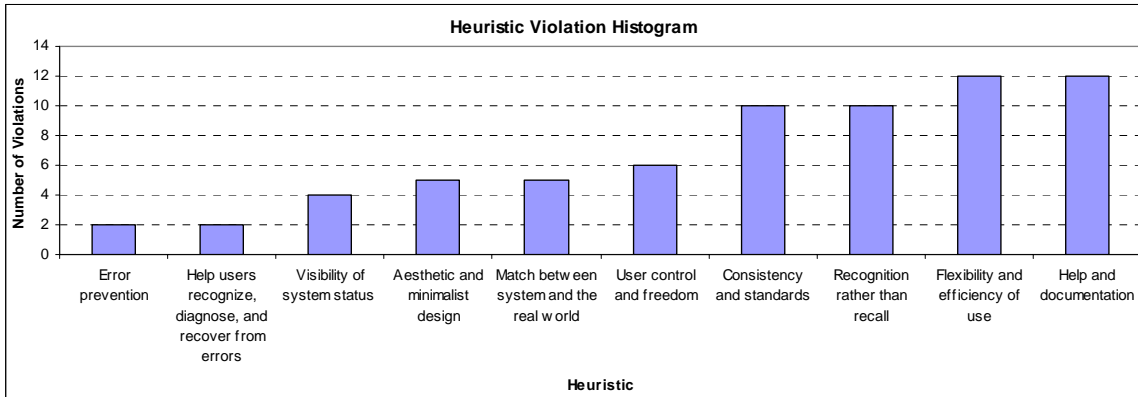


Figure 2: Frequency of occurrence of individual heuristic violations

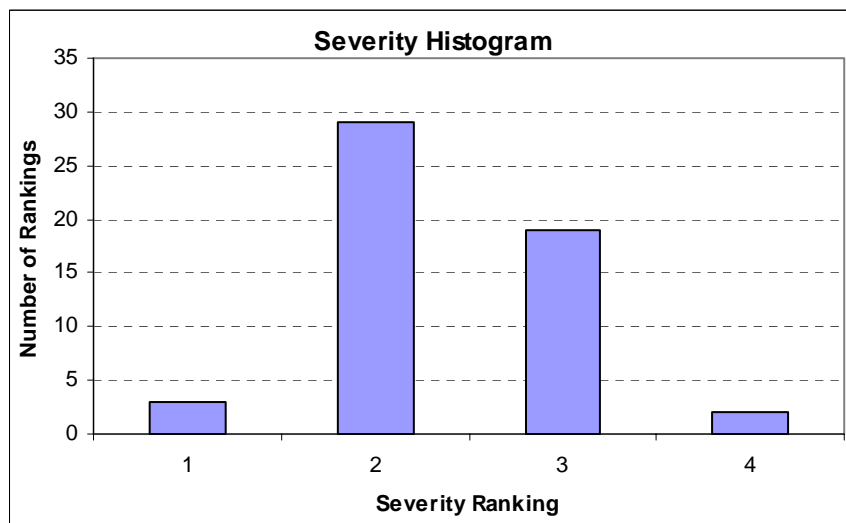


Figure 3 Frequency of occurrence of severity rankings

## Major Issues:

### Issue 1: Ph.D. program requirements are difficult to locate

The first evaluation task was to find the Ph.D. program graduation requirements. This task was aimed at current and prospective IPCAA students because this information is important to both target audiences. The former group use program requirements to check their program completion status and the latter for researching the program. In the end, the program requirement information usage is anticipated to be very frequent. For these reasons, IPCAA's program requirements page should be well-organized and be available easily.

Our team had difficulty locating Ph.D. program requirements on the IPCCCA web site. Portions of the information were found on two individual Microsoft Word documents located on different pages of the web site, as well as the Program Requirements page

- FAQs about the IPCAA Preliminary Exams
  - <http://www.umich.edu/~ipcaa/currentstudent/prelimfaq.doc>
- IPCAA Handbook
  - [http://www.umich.edu/~ipcaa/currentstudent/IPCAA\\_handbook.doc](http://www.umich.edu/~ipcaa/currentstudent/IPCAA_handbook.doc)
- Program Requirements
  - <http://www.umich.edu/~ipcaa/overview/requirements.html>

This violates the *recognition rather than recall* heuristic (Appendix List 1) because it requires users to download and partially recombine relevant, frequently-used information from three unique sources. This process unnecessarily increases users' cognitive load. The average severity rating for this particular issue is 4 out of 4, which classifies it as a usability violation of high priority and importance.

A potential solution for this issue would be to create a single page for Ph.D. program requirements, one that incorporates all of the pertinent information about this topic into a single location. An example of such an implementation is depicted in Figure 4. The page shows the doctoral program requirements for students at the U-M School of Information summarized on a single page.

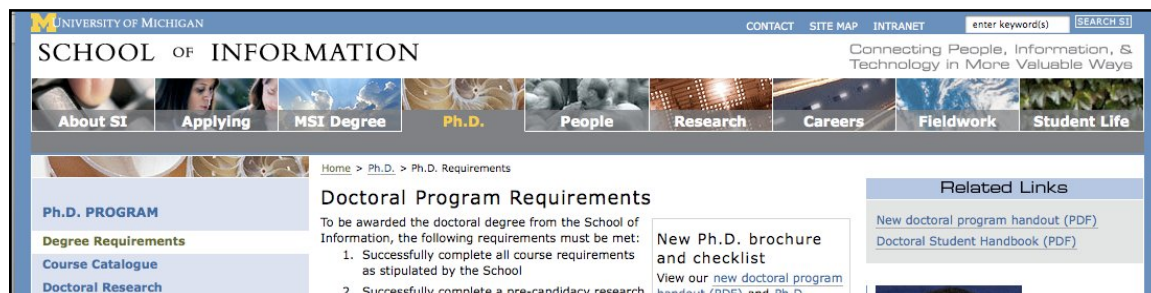


Figure 4: A partial view of the U-M School of Information Doctoral Program Requirements page  
<http://www.si.umich.edu/phd/default.htm>

**Issue 2:** *Lack of a Ph.D. program requirements check list*

The heuristic evaluation revealed that even if the Ph.D. program requirements could be located, there is no tool to view the requirements efficiently. This was seen as a violation of the *help and documentation* heuristic (Appendix List 1). The team rated this problem with a severity of 3 out of 4, classifying it as a major usability problem with high priority status.

As a fix for this issue, a Ph.D. program requirements checklist could be formatted as a webpage and a PDF document available for download. The web page would allow for a quick review of the checklist, and the PDF document would be in a useful, formatted form. Figures 1 & 2 in the Appendix provide examples of a printable Ph.D. program requirements checklist.

In addition, the IPCAA Student Handbook could be improved to contain such a program requirements checklist, similar to the U-M School of Information checklist (Appendix Figure 1 & 2). The document should also include revision information and a common IPCAA letterhead to maintain thematic consistency across web pages and documents.

**Issue 3:** *Ph.D. program requirements not found at the top level of the Current Student web page sub-section*

As evaluators taking on the first task of locating Ph.D. program requirements, we expected to find such important information at a high level in the IPCAA web site's menu structure. When this expectation was not met and the information was not easily found, at least one evaluator ended the task.

The lack of a clearly defined and quickly identifiable path to the required information was determined to be a violation of the *help and documentation* heuristic. The team's average severity rating for this violation was 3 out of 4, indicating a high priority item that creates a substantial usability problem.

One way to make a sub-page visible and easier for the user to locate, especially when the web page contains a substantial amount of information divided into sub-pages, is to use drop-down menus as a navigation tool. In Figure 5, we demonstrate a drop-down menu by placing the cursor over a main menu item. It should be noted, however, that drop-down menus should not contain too many items, nor should they open too many branching sub-menus.



Figure 5: The drop-down menu on the U-M School of Information home page  
<http://www.si.umich.edu>

#### Issue 4: Course details are difficult to locate

The final issue associated with the Ph.D. requirements search task was the difficulty in finding course details whose titles are listed on the IPCAA Course Information page. Although the page lists a large collection of course titles and numbers, there are no course descriptions, catalog numbers, credit information, web page links, or semester offered information. Evaluators had to leave the IPCAA web site, navigate to an external U-M web site, and locate the appropriate course information there.

This lack of detail was seen as a violation of the *recognition rather than recall* heuristic because the user is required to multitask between two web sites to find the required course information. Furthermore, the user has to either write down or cut and paste the course names and numbers into a separate document or web page search engine. The severity of the issue is exacerbated if the user's web browser does not feature tabbed page view, or the device has a reduced screen size, such as a laptop or netbook. The team rated this problem with a severity of 3 out of 4, classifying it as a major usability problem with high priority status.

As a potential solution, the course titles on the IPCAA Course Information page could be hyperlinked to descriptions provided elsewhere on the IPCAA web site, or linked to information contained on an external U-M site. For example, several U-M department web sites contain full course descriptions:

- The College of Engineering Department of Mechanical Engineering
  - <https://me-web2.engin.umich.edu/courses/>
- The School of Information Ph.D. Program
  - <http://www.si.umich.edu/courses/phd.htm>
- The School of Education
  - <http://www.soe.umich.edu/coursedescriptions/700/index.html>

**Issue 5:** *Current fieldwork is difficult to locate*

Our team found it difficult to locate current fieldwork when performing task three: find out whether or not there is currently on-going research in Western Asia. This task is aimed for prospective students looking for research opportunities during the admissions and application review processes.

Because communicating to all audiences about current research and fieldwork is one of IPCAA's primary goals, we rated this heuristic violation a 3 out of 4 in severity, indicating a major usability problem. As evaluators, we expected to find an up-to-date and prominently displayed list of on-going fieldwork, but instead we found the information buried in long paragraphs, external Kelsey Museum web sites and within faculty bios. We also noted difficulty in locating past research. Overall, the IPCAA web site does not list the information in natural or logical order, so it fails the *match between system and the real world* heuristic.

As a solution to this usability issue, the "Fieldwork & Museum Opportunities" main menu item could have a drop-down menu linking to "Current Fieldwork/Research" and "Past Fieldwork/Research", on which a list of the on-going and archived projects is prominently displayed. On these pages, we suggest the addition of an interactive map depicting research topics and fieldwork locations.

Additionally, although the web sites for current and past fieldwork locations are accessible via the Kelsey Museum of Archaeology's web site, we feel that this information could be included on the IPCAA web site itself. The current IPCAA web site could be enhanced with more extensive descriptions and exciting features that concern the past and current research projects of IPCAA students. The Kelsey Museum web site itself possesses several features that IPCAA could potentially adopt: a list of publications, a link for News and Events, and a link to the Kelsey Museum Artifacts Database.

**Issue 6:** *Link to Museum Studies Program is broken*

The link<sup>2</sup> to the Museum Studies Program was found to be broken, and we rated this violation at 3 out of 4 in severity. We uncovered this error during task five, "Find the application for the Museum Studies program." The Museum Studies Program is highly relevant to IPCAA, and the links connecting the two web sites should be free of error. This error violates the *help users recover from errors* heuristic, because it does not help to guide users to the Museum Studies home page.

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<sup>2</sup> <http://www.umich.edu/~ipcaa/opportunities/index.html>

**Issue 7:** *The contact information for specific program staff is not available*

The information included on IPCAA's Contact Us page<sup>3</sup> is not thorough, as it does not give prospective students the names of the people who will be receiving the e-mail. This is problematic for users who would like to contact IPCAA through their web site, because they are not provided with the knowledge that would help them to address the e-mail to the appropriate person or help them tailor their message to the person receiving the e-mail. We rated this issue at 3 out of 4 in severity. This issue was uncovered during when doing task six, "Contact the graduate student advisor via e-mail." Our team felt that this issue broke the *help and documentation* heuristic.

**Issue 8:** *IPCAA Student Handbook downloadable only as a Word document*

The fact that the IPCAA Handbook is available for download on the IPCAA web site is a strength, and we feel this would be enhanced by posting the document in PDF format instead of a Microsoft Word document. The PDF document format lends itself to a level of compatibility that exceeds that of a Microsoft Word document. Changing all other posted documents to PDF would help eliminate Microsoft Word version compatibility for users. We rated this issue a 3 out of 4 in severity. This issue was uncovered by conducting task two, "Find the Ph.D. program requirements for graduation." Our team felt that this issue broke the *help and documentation* heuristic.

**Issue 9:** *Graduate student fellowships and awards list unorganized*

The lack of organization on the Graduate Student Fellowships and Awards<sup>4</sup> page is a major usability problem that violates multiple heuristics. The list of funding opportunities is crucial to both current students seeking funding resources and prospective students investigating graduate school options. We found the list of funding opportunities to be difficult to navigate because of the disconnect between the current page layout and the real world expectations that choices and options be organized according to a standard format. We recommend funding opportunities be organized alphabetically, in order to facilitate quick location of specific grants, fellowships, and scholarships. We located this issue through conducting task four, "Find Fulbright Grant application for study abroad."

## VI. Conclusion

This report documents the results of a heuristic evaluation performed on IPCAA's web site. The primary goal of the heuristic evaluation was to use industry-accepted usability guidelines to identify IPCAA web site usability flaws. The team used Nielsen's heuristic evaluation methodology (Nielsen, 1994) to execute the test.

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<sup>3</sup> <http://www.umich.edu/~ipcaa/contact/index.html>

<sup>4</sup> <http://www.umich.edu/~ipcaa/currentstudent/fellowships.html>

In our analysis of the outcomes, we uncovered nine key findings that relate to the web site's information organization, features and capabilities, and design. Each issue, from minor to major, varies in frequency, impact, and persistence on the IPCAA web site, but all play an important role in usability and overall user experience.

It is the team's hope and intention that the key usability issues indentified in this report are fixed in any future IPCAA web site redesign activity. We also strongly urge correcting minor issues listed in Appendix Table III.

## References

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Nielsen, Jakob. (1994). Heuristic Evaluation. In J. Nielsen & R. L. Mack (Eds.), *Usability Inspection Methods*. New York: John Wiley & Sons.

Nielsen, Jakob. (2005). *Heuristics for user interface design*. Retrieved February 14, 2009, from [http://www.useit.com/papers/heuristic/heuristic\\_list.html](http://www.useit.com/papers/heuristic/heuristic_list.html)

Nielsen, Jakob. (2005). *Severity ratings for usability problems*. Retrieved February 14, 2009, from <http://www.useit.com/papers/heuristic/severityrating.html>

*University of Michigan School of Information*. Retrieved February 14, 2009 from <http://www.si.umich.edu/index.html>

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## Appendix

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**Table I: List of Heuristic Evaluation Tasks**

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<b>Task</b>	<b>Task Description</b>
1	Find out what application materials to submit when applying to IPCAA's Ph.D. program
2	Find the Ph.D. program requirements for graduation
3	Find out whether or not there is currently on-going research in Western Asia
4	Find Fulbright grant application for study abroad
5	Find application for U of M Museum Studies program
6	Contact, via e-mail, the Graduate Student Advisor

# List 1: Heuristics Used in Evaluation

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## Ten Usability Heuristics (Nielsen, 2005)

**1. Visibility of system status**

The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.

**2. Match between system and the real world**

The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order.

**3. User control and freedom**

Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue. Support undo and redo.

**4. Consistency and standards**

Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform conventions.

**5. Error prevention**

Even better than good error messages is a careful design which prevents a problem from occurring in the first place. Either eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action.

**6. Recognition rather than recall**

Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.

**7. Flexibility and efficiency of use**

Accelerators -- unseen by the novice user -- may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.

**8. Aesthetic and minimalist design**

Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.

**9. Help users recognize, diagnose, and recover from errors**

Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.

**10. Help and documentation**

Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.

**Table II: Severity Grading Scale**

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<b>Severity</b>	<b>Severity Description</b>
0	Don't agree that this is a usability problem
1	Cosmetic problem, fix only if extra time is available
2	Minor usability problem, low priority
3	Major usability problem, important to fix, high priority
4	Usability catastrophe, imperative to fix

Severity Ratings for Usability Problems (Nielsen, 2005)

### Table III: Team Heuristic Evaluation Results

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## Team Heuristic Evaluation Results - 1

Task Description	Web Page	Violation	Heuristic	Severity	Potential Fix
Find out what application materials to submit when applying to IPCAA's Ph.D. program	Admissions and Prerequisites: <a href="http://www.umich.edu/~ipcaa/prospectivestudent/admissions.html">http://www.umich.edu/~ipcaa/prospectivestudent/admissions.html</a>	At the end of the page, user is left to remember all dates mentioned in the text, i.e. application deadline, review dates, visitation dates, deadline for accepting/rejecting offer of admission.	6	3	Have a simple and elegant calendar to view and download, so that the users are not taxed with holding so many dates in memory.
		The Ph.D. admissions checklist is anticipated to be frequently accessed information, but it is not labeled clearly to facilitate rapid access. There is no shortcut to access the information easier faster. This makes users remember where on the page the checklist is located.	6,7	3	Make the list of application materials more visible by moving the section up, bolding its heading, renaming it, or providing a shortcut from the home page
		There are no resources available for download when a prospective student wants to take the information away from the computer.	10	2	Prospective students could benefit from having downloadable documentation for admissions information.
		There is no shortcut back to the Prospective Student Information page; the user must use the main menu link or the browser "Back" button to go back. This breaks flexibility and is not tailored for frequent actions.	3	2	Add a link to go back to the Prospective Student Information page on each page under that category.
		Because the application requirements are listed in the middle of a long page, it necessitates scrolling back up to go back to the main menu.	7	2	Provide a "Back to Top" link at the end of each content section on the page to accelerate the process of returning to the main menu.
	Prospective Student Information: <a href="http://www.umich.edu/~ipcaa/prospectivestudent/index.html">http://www.umich.edu/~ipcaa/prospectivestudent/index.html</a>	There are three links leading to the Admissions and Prerequisites page, each labeled differently: - Admissions and Prerequisites - Details of Application Process - The Admission Process and Prerequisites	4	3	Provide only one link to the Admissions and Prerequisites page or use two links (one image - one text) but labeled the same. Use a common description.
	Color contrast between the link and the background makes link visibility difficult.	8	2	Increase color contrast between background and link in the content body.	
	IPCAA Home Page: <a href="http://www.umich.edu/~ipcaa/">http://www.umich.edu/~ipcaa/</a>	Admissions information was expected to be on the home page because it is anticipated to be frequently accessed information.	2,7	2	Create a shortcut to the Admissions and Prerequisites page on the home page.
Find the Ph.D. program requirements for graduation.	Current Student Information: <a href="http://www.umich.edu/~ipcaa/currentstudent/index.html">http://www.umich.edu/~ipcaa/currentstudent/index.html</a>	Ph.D. program requirements were expected to be in the Current Student Information section, but they were not. I gave up searching when I did not immediately find requirements.	10	3	Implement a drop-down menu that displays main sub-sections in each main menu item. Or, create a page that states the program requirements, and shows when deadlines need to be met.

## Team Heuristic Evaluation Results - 2

Task Description	Web Page	Violation	Heuristic	Severity	Potential Fix
Find the Ph.D. program requirements for graduation. (cont.)	Current Student Information: <a href="http://www.umich.edu/~ipcaa/currentstudent/index.html">http://www.umich.edu/~ipcaa/currentstudent/index.html</a>	There is a mismatch between the sub-menu link text and the bulleted link text. For example, "Kudos" does not match "Student Kudos."	4	2	Provide only one link to the target page and/or make sub-menu link text match the bulleted link text
	Current Student FAQ: <a href="http://www.umich.edu/~ipcaa/currentstudent/currentfaq.html">http://www.umich.edu/~ipcaa/currentstudent/currentfaq.html</a>	The Ph.D. graduation checklist is anticipated to be frequently accessed information, but it is not listed on the Current Student FAQ. The checklist is not made visible to the user and therefore the user must recall instead of recognize where the graduation checklist might also be found.	6	3	List Ph.D. graduation requirements in the Current Student FAQ
		There is no shortcut back to the Current Student Information page; the user must use the main menu link or the browser "Back" button to go back. This breaks flexibility and is not tailored for frequent actions.	3,7	2	Add a link to go back to the Current Student Information page on each page under that category.
		The link to Rackham OARD is not live. It is just the URL written in plain text that doesn't link to anything.	4,7	2	Modify HTML markup to make the link live. Don't use the URL as text to link to its target page.
		The Preliminary Exam FAQ text uses smaller font than other FAQs on page.	4	1	Modify style sheet to common font size
		The Preliminary Exam FAQ at bottom of page links to a downloadable Microsoft Word document. This is not clearly explained to the user.	1	2	Modify text to explain that user is downloading a file.
		The Preliminary Exam FAQ, is not distributed as a non-editable format (PDF), is not on IPCAA letterhead, and contains no revision information.	10	2	Replace the Microsoft Word document with a PDF copy. Place contact information on the document identifying it as an official IPCAA program document. Add a revision date so users know if data is current
		Course Information: <a href="http://www.umich.edu/~ipcaa/overview/course.html">http://www.umich.edu/~ipcaa/overview/course.html</a>	The page does not contain course descriptions. Users must remember course numbers and titles before seeking out course descriptions on an external web site.	6,10	3

### Team Heuristic Evaluation Results - 3

Task Description	Web Page	Violation	Heuristic	Severity	Potential Fix
Find the Ph.D. program requirements for graduation. (cont.)	IPCAA Handbook: <a href="http://www.umich.edu/~ipcaa/currentstudent/handbook.html">http://www.umich.edu/~ipcaa/currentstudent/handbook.html</a>	The IPCAA handbook is anticipated to be frequently accessed information. The page should not make users download a Microsoft Word. This violates consistency by forcing user to move away from the web browser to start a Word editor. Doing this time and time again makes the document tedious to retrieve.	4,6	3	The IPCAA handbook should be in web-page format and downloadable as a PDF, as well.
	Not Applicable	There is no webpage with Ph.D. program requirements for graduation. This is anticipated to be frequently accessed information but is not visible or easily retrievable.	6	4	Ph.D. program requirements for graduation should be listed on a web page that is easily and quickly accessible, perhaps from the IPCAA home page.
	IPCAA Handbook Download: <a href="http://www.umich.edu/~ipcaa/currentstudent/IPCAA_handbook.doc">http://www.umich.edu/~ipcaa/currentstudent/IPCAA_handbook.doc</a>	There is no checklist for program requirements; the user must read several long paragraphs to figure out the requirements. User must seek out information within the document that is challenging to find. There are also grammatical and spelling errors within the document.	10	3	There should be an easily identifiable Ph.D. program requirements checklist. The document should also be fixed for grammatical and spelling errors.
	Rackham Forms: <a href="http://www.umich.edu/~ipcaa/currentstudent/forms.html">http://www.umich.edu/~ipcaa/currentstudent/forms.html</a>	There is no shortcut back to the Current Student Information page; the user must use the main menu link or the browser "Back" button to go back. This breaks flexibility and is not tailored for frequent actions.	3	2	Add a link to go back to the Current Student Information page on each page under that category.
Find out whether or not there is currently on-going research in Western Asia	Fieldwork & Museum Opportunities: <a href="http://www.umich.edu/~ipcaa/opportunities/index.html">http://www.umich.edu/~ipcaa/opportunities/index.html</a>	I was not able to find a page with on-going fieldwork. This information is not explicitly labeled, thus if it exists on the page it was passed over.	10	3	Make clearly visible any links to on-going fieldwork. Create links or pages of current research being conducted.
		The information is lengthy and difficult to visualize. There is no map included on this page that pinpoints the locations of the fieldwork sites relative to one another.	6	3	Add a map with dots to indicate the fieldwork locations next to the page text. Provide a PDF map available for download.
		Does "Fieldwork" mean "active sites" or "opportunities to do fieldwork"?	2,4	3	Add text descriptors to indicate the information on the page.
	Archaeological Fieldwork Opportunities: <a href="http://www.umich.edu/~ipcaa/opportunities/fieldwork.html">http://www.umich.edu/~ipcaa/opportunities/fieldwork.html</a>	There should be fieldwork documentation that is much more extensive; as it currently stands, fieldwork info is relatively sparse (compared to the Brown University web site)	10	2	All audiences might find it useful to have documentation on archaeological sites available for download.

## Team Heuristic Evaluation Results - 4

Task Description	Web Page	Violation	Heuristic	Severity	Potential Fix
Find out whether or not there is currently on-going research in Western Asia (cont.)	Archaeological Fieldwork Opportunities: <a href="http://www.umich.edu/~ipcaa/opportunities/fieldwork.html">http://www.umich.edu/~ipcaa/opportunities/fieldwork.html</a>	There is no shortcut back to the Fieldwork and Museum Opportunities page; the user must use the main menu link or the browser "Back" button to go back. This breaks flexibility and is not tailored for frequent actions.	3	2	Add a link to go back to the Fieldwork and Museum Opportunities page on each page under that category.
		There are many links that lead to external web site. The user is not informed that she will be leaving the IPCAA web site if she visits the links. This is not conducive to a consistent browsing experience.	1	2	Give the user information that the link takes you to an external site. Or, open the target link in a new tab or browser window.
	IPCAA Home Page: <a href="http://www.umich.edu/~ipcaa/">http://www.umich.edu/~ipcaa/</a>	There is no main menu item that points to current/past research. User must find research information in the Core Faculty and Associated Faculty pages. Communicating on-going research is a main goal of the web page, but it does not put the information in a logical place of the web site.	2	4	Current / Past Research or Research Topics should be a web page accessible from the main menu. This page could also benefit from an interactive geographic map of the locations of research topics being pursued.
Find Fulbright grant application for study abroad	Graduate Student Fellowships and Awards: <a href="http://www.umich.edu/~ipcaa/currentstudent/fellowships.html">http://www.umich.edu/~ipcaa/currentstudent/fellowships.html</a>	This page is very lengthy and it necessitates much scrolling to find the information. After scrolling from the top to bottom on the first pass, I needed to go back because I missed the Fulbright text.  The list of the scholarships/grants/fellowships is not organized by any real-world organizational scheme, so the individual items take longer to locate.	2,6,7,8	3	Funding opportunities should be organized by some attribute, whether by application deadline, purpose, nationality, field, profession, location, alphabetically, etc., to make them easier to find.  There could be a calendar with fellowship deadlines. That way they can all be viewed relative to one another, and in sequence/order of importance and priority.  The page could also have an overview of the types of fellowships and provide cross-reference links to them in the same page. Search functionality would be useful as well (i.e., a search bar located at the top of the page)
		Deadlines for fellowship opportunities are not up to date			2
		There is a mismatch between the sub-menu link and the bulleted link text. For example, "Fellowships and Financial Aid" does not match "Graduate Student Fellowships and Awards."	4	2	Provide only one link to the target page and/or make sub-menu link text match the bulleted link text

## Team Heuristic Evaluation Results - 5

Task Description	Web Page	Violation	Heuristic	Severity	Potential Fix
Find Fulbright Grant application for study abroad (cont.)	Graduate Student Fellowships and Awards: <a href="http://www.umich.edu/~ipcaa/currentstudent/fellowships.html">http://www.umich.edu/~ipcaa/currentstudent/fellowships.html</a>	There is no shortcut back to the Current Student Information page; the user must use the main menu link or the browser "Back" button to go back. This breaks flexibility and is not tailored for frequent actions.	3	1	Add a link to go back to the Current Student Information page on each page under that category.
		The link to the LSA Funding Portal web site is the actual target URL. This is not consistent with other pages.	4	2	Instead of its target URL, the link should be descriptive text.
	Graduate Student Fellowships and Awards: <a href="http://www.umich.edu/~ipcaa/currentstudent/fellowships.html">http://www.umich.edu/~ipcaa/currentstudent/fellowships.html</a>  Travel Funding List: <a href="http://www.umich.edu/~ipcaa/currentstudent/Travel_Funding_List.pdf">http://www.umich.edu/~ipcaa/currentstudent/Travel_Funding_List.pdf</a>	The link labeled "Click HERE" does not inform the user that a PDF file will be downloaded. The Travel Funding PDF is not on IPCAA letterhead, contains no revision information, and uses a difficult to read font.	1,5,10	2	There should be text that informs the user that the link leads to downloading a PDF file. Place contact information or a letterhead in the PDF document identifying it as an official IPCAA program document. Add a revision date so users know if data is current. Change to a more readable font.
Find application for U of M Museum Studies program	Fieldwork & Museum Opportunities: <a href="http://www.umich.edu/~ipcaa/opportunities/index.html">http://www.umich.edu/~ipcaa/opportunities/index.html</a>	The link to the Certificate in Museum Studies in the second paragraph is broken.	9	3	Correct the dead link.
	Museum Opportunities: <a href="http://www.umich.edu/~ipcaa/opportunities/museum.html">http://www.umich.edu/~ipcaa/opportunities/museum.html</a>	Section headings do not stand out. The page does not provide a shortcut to access a section faster. Users are required to remember where on the page an individual section is located.	6,7	2	Section headings on sub-pages should be bolded or an outline provided at the top of the sub-page with cross-reference links. This also applies to other sub-pages containing long text.
		Link to museum to studies program leaves the web site. System does not inform user that she will be leaving IPCAA web site domain. This is not conducive to a consistent browsing experience.	1,4	3	1) Open external links in a new window or tab. Open internal links in the same window or tab. 2) Let the user know that by clicking on the Museum Studies hyperlink, she will no longer be in the IPCAA domain.
	Program Overview: <a href="http://www.umich.edu/~ipcaa/overview/index.html">http://www.umich.edu/~ipcaa/overview/index.html</a>	There was no easy path to find the application for the Museum Studies program. I had to guess that Museum Studies fell in category labeled "Additional Degrees." I also had to guess that it was labeled under "Certificates."	7,8,10	2	Minimize the process of searching for the Museum Studies program.
	University of Michigan Museum Studies Program: <a href="http://www.umich.edu/~ummsp/home.htm">http://www.umich.edu/~ummsp/home.htm</a>	There is no direct link for returning to IPCAA site for reviewing IPCAA information.	6	2	IPCAA should have a "Print this page" function, so that the Museum Studies info on the IPCAA page can be printed before navigating away to the Museum Studies Program web site.

## Team Heuristic Evaluation Results - 6

Task Description	Web Page	Violation	Heuristic	Severity	Fix
Contact, via e-mail, the Graduate Student Advisor	IPCAA Core Faculty <a href="http://www.umich.edu/~ipcaa/faculty-staff/core.html">http://www.umich.edu/~ipcaa/faculty-staff/core.html</a>	There is no shortcut back to the Faculty & Staff Directory page; the user must use the main menu link or the browser "Back" button to go back. This breaks flexibility and is not tailored for frequent actions.	3	2	Add a link to go back to the Faculty & Staff Directory page on each page under that category.
		Chris Ratte's faculty bio does not state that he's the Graduate Student Advisor.	10	3	Update Chris Ratte's profile to include that he is the Graduate Student Advisor.
	IPCAA Staff <a href="http://www.umich.edu/~ipcaa/faculty-staff/staff.html">http://www.umich.edu/~ipcaa/faculty-staff/staff.html</a>	There is no e-mail address listed for the Graduate Program Coordinator	10	2	Add e-mail address to other contact information
Contact Us <a href="http://www.umich.edu/~ipcaa/contact/index.html">http://www.umich.edu/~ipcaa/contact/index.html</a>		There is no way to determine if the user is contacting the Graduate Student Advisor. The advisor's name is not on the page.	10	3	List Graduate Student Advisor contact information on the page. Incorporate info about job positions and roles, with names of advisors, staff; so that prospective students know exactly who they are contacting. Users should be able to know the names of those who will be receiving their e-mail.
		Confusing first paragraph - will everyone get the e-mail I send? Should I address the e-mail to one of those three people? This is an error-prone condition that causes confusion to the user.	5	3	Clarify introductory paragraph. Either create one e-mail address that is labeled as "requests, inquiries, and other general questions" or create separate ones for each IPCAA roles (Graduate Program Coordinator, Graduate Student Advisor, IPCAA Director, Student Services Assistant)
Issues found that apply to all tasks	All Pages	The web page is not centered on the screen	8	2	Center the page contents
		Background image is tiled when web site is viewed at high resolutions (1600 x 1200)	8	1	Allow fluid layout for various screen resolutions and scale the background image
		IPCAA contact information is not listed on every page. Users must leave the page they are currently viewing to get the contact information on a different page.	7	2	Include contact information in the page footer.
	All Sub-Pages i.e., <a href="http://www.umich.edu/~ipcaa/about/index.html">http://www.umich.edu/~ipcaa/about/index.html</a>	"Back to Top" link is easily overlooked because it is placed next to an image, is written in a small font, and is left-aligned. Because it is hard to notice, it isn't very useful.	7	2	Make "Back to Top" a larger font, right-aligned

## Team Heuristic Evaluation Results - 7

Task Description	Web Page	Violation	Heuristic	Severity	Fix
Issues found that apply to all tasks (cont.)	All Sub-Pages i.e., <a href="http://www.umich.edu/~ipcaa/about/index.html">http://www.umich.edu/~ipcaa/about/index.html</a>	The "Back to Top" link is placed on pages that are very short. Not appropriate to place a return to top link on pages that are very short.	7	2	"Back to Top" should be placed on pages that are longer than one screen height.
		There are no differences in options for current versus prospective students.	7	3	Create tailored features that target different audiences (e.g. current vs. prospective students, visiting scholars vs. UM faculty).
		Sub headings are written in all-caps. All-caps text is more difficult to read than mixed upper/lower case.	9	2	Remove all-caps on sub-heading text
Other	See violation description	<p>Link syntax is not consistent across pages:</p> <ul style="list-style-type: none"> <li>- Some are normal links with text descriptors (i.e., U-M Resources: <a href="http://www.umich.edu/~ipcaa/resources/index.html">http://www.umich.edu/~ipcaa/resources/index.html</a>)</li> <li>- Some are explicit URLs and live (i.e., Graduate Student Fellowships and Awards: <a href="http://www.umich.edu/~ipcaa/currentstudent/fellowships.html">http://www.umich.edu/~ipcaa/currentstudent/fellowships.html</a>)</li> <li>- Some are explicit URLs, but not live (i.e., Current Student FAQ, OARD link: <a href="http://www.umich.edu/~ipcaa/currentstudent/currentfaq.html">http://www.umich.edu/~ipcaa/currentstudent/currentfaq.html</a>)</li> </ul>	4	2	Use one way to present hyperlinks and maintain consistency across pages.

## Table IV: Raw Individual Heuristic Evaluation Results

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## Raw Individual Heuristic Evaluation Results – Patrick McDonnell

Task Description	Web Page	Violation	Heuristic	Severity	Fix
Find out what application materials to submit when applying to IPCAA's Ph.D. program	IPCAA Home Page: <a href="http://www.umich.edu/~ipcaa/">http://www.umich.edu/~ipcaa/</a>	Admissions information was not available on the main screen as expected.	2,7	2	Create an "admissions" option on the home page
Find the Ph.D. program requirements for graduation	Current Student Information: <a href="http://www.umich.edu/~ipcaa/currentstudent/index.html">http://www.umich.edu/~ipcaa/currentstudent/index.html</a>	Thought requirements would be explicitly stated in the current Student Info section, they were not. Gave up search when did not immediately find requirements	10	4	1: Pull down menu showing what is available on under the subheading 2: Create a page that states the program requirements, and shows when deadlines need to be met
Find out whether or not there is currently on-going research in Western Asia	Fieldwork & Museum Opportunities: <a href="http://www.umich.edu/~ipcaa/opportunities/index.html">http://www.umich.edu/~ipcaa/opportunities/index.html</a>	Did not find on-going field work. It was not explicitly labeled, thus if it exists it was passed over.	10	2	Create links or pages of current research being conducted
Find Fulbright Grant application for Study Abroad	Graduate Student Fellowships and Awards: <a href="http://www.umich.edu/~ipcaa/currentstudent/fellowships.html">http://www.umich.edu/~ipcaa/currentstudent/fellowships.html</a>	The page full of text was very lengthy; it took a lot of scrolling to find the information; after scrolling from top to bottom once had to go back because missed Fulbright info on the first pass.	3,6,7,8	2	Create a search bar
Find application for U of M Museum Studies Program	Program Overview: <a href="http://www.umich.edu/~ipcaa/overview/index.html">http://www.umich.edu/~ipcaa/overview/index.html</a>	There was not an apparent path. Had to guess that Museum studies fell in category labeled additional degrees. Also guessed it was labeled under certificates.	7,8,10	2	Minimize the process of searching by either making the options explicit.
Contact, via e-mail, the Graduate Student Advisor	IPCAA Home Page: <a href="http://www.umich.edu/~ipcaa/">http://www.umich.edu/~ipcaa/</a>	No way to tell if user is contacting the graduate student advisor.	10	1	List graduate advisor information

## Raw Individual Heuristic Evaluation Results – Jessamyn Smallenburg

Task Description	Web Page	Violation	Heuristic	Severity	Fix
Find out what application materials to submit when applying to IPCAA's Ph.D. program	Admissions and Prerequisites: <a href="http://www.umich.edu/~ipcaa/prospectivestudent/admissions.html">http://www.umich.edu/~ipcaa/prospectivestudent/admissions.html</a>	At the end of the page (after reading) the user is left to remember all dates mentioned in the text, i.e. application deadlines, review dates, visitation dates, deadline for accepting/rejecting offer of admission.	6	4	Have a simple and elegant calendar to view and download, so that the users are not taxed with holding so many dates in memory.
Find the Ph.D. program requirements for graduation	Program Requirements : <a href="http://www.umich.edu/~ipcaa/overview/requirements.html">http://www.umich.edu/~ipcaa/overview/requirements.html</a>	Course titles/numbers should not have to be remembered while user navigates away from list to seek course descriptions.	6	4	The course names should have hyperlinks directly to course descriptions, and course info could also be available for download.
		Not clear where to click to obtain course details; class information is important for all audiences, including current/prospective students, visiting scholars, and faculty at other schools.	10	4	Same as above: Course names could have hyperlinks to course descriptions, and course info could be available for download.
Find out whether or not there is currently on-going research in Western Asia	Fieldwork & Museum Opportunities: <a href="http://www.umich.edu/~ipcaa/opportunities/fieldwork.html">http://www.umich.edu/~ipcaa/opportunities/fieldwork.html</a>	There is not a map included on the IPCAA fieldwork site that pinpoints the locations of the fieldwork sites relative to one another.	6	4	It would be helpful to have a visual of the fieldwork site locations, like a map with bullet points on each of the locations.
		There are no fieldwork resources available for download.	10	4	Have documentation available for download, such as maps, diagrams, layouts, etc., so that visitors have documentation of the fieldwork sites. Have direct links to archaeological projects; hyperlinks on Museum Opportunities page; could have details about 100,000 artifacts and 25,000 photographs.
Find Fulbright Grant application for Study Abroad	Graduate Student Fellowships and Awards: <a href="http://www.umich.edu/~ipcaa/currentstudent/fellowships.html">http://www.umich.edu/~ipcaa/currentstudent/fellowships.html</a>	The organization of the scholarships/grants, etc., does not follow a real world order, such as being sequenced alphabetically. They are therefore more difficult to search through, especially if looking for a specific one.	2	4	Funding opportunities could be organized alphabetically to aid searching.
		Page requires a lot of scrolling and there are a lot of dates to remember.	6	2	Consider adding a calendar feature that highlights all of the deadlines.
Find application for U of M Museum Studies Program	University of Michigan Museum Studies Program: <a href="http://www.umich.edu/~ummsp/home.htm">http://www.umich.edu/~ummsp/home.htm</a>	Does not inform users that they will be leaving IPCAA's domain.	1	2	Inform users that this link leaves the IPCAA web site.
		There is no mechanism provided for returning directly to IPCAA web site.	6	2	Create a direct link to IPCAA from the Museum Studies Home Page.
Contact, via e-mail, the Graduate Student Advisor	Contact Us: <a href="http://www.umich.edu/~ipcaa/contact/index.html">http://www.umich.edu/~ipcaa/contact/index.html</a>	Graduate Student Advisor's name is not on the contact page.	10	4	Specify who the graduate student advisor is on the contact page (and on the faculty info page). Specify the other recipients who will be reading the e-mail.

## Raw Individual Heuristic Evaluation Results – Jessamyn Smallenburg (cont.)

Task Description	Web Page	Violation	Heuristic	Severity	Fix
Other	All Pages	There are no differences in options for current versus prospective students.	7	4	There is a lot of room to expand here to make the site more interesting, engaging and memorable. There could be features that users can access with passwords, e.g. content directed at UM faculty and students. There could be an area of the site that addresses scholars specifically.

## Raw Individual Heuristic Evaluation Results – Jacek Spiewla

Task Description	Web Page	Violation	Heuristic	Severity	Fix
Find out what application materials to submit when applying to IPCAA's Ph.D. program	Prospective Student Information: <a href="http://www.umich.edu/~ipcaa/prospectivestudent/index.html">http://www.umich.edu/~ipcaa/prospectivestudent/index.html</a>	There are three links to the admissions and prerequisites section of the web site, all worded differently. Violates consistency.	4	3	Provide only one link to the Admissions and Prerequisites page, or use two links (one image - one text) but labeled the same
	Admissions and Prerequisites: <a href="http://www.umich.edu/~ipcaa/prospectivestudent/admissions.html">http://www.umich.edu/~ipcaa/prospectivestudent/admissions.html</a>	Because the application materials list is in the middle of a long page, it necessitates scrolling back up to exit. Does not provide a shortcut to exit.	7	1	Provide a "Back to Top" link at the end of each Sub-section on the page to accelerate the process of returning to the main menu and sub-menu
		The Ph.D. admissions checklist is a frequently used feature on this page, and it is not labeled clearly to facilitate rapid access. Does not provide a shortcut to access the information easier. Makes users remember where on the page the checklist is located.	6,7	3	Make the list of application materials more visible by moving the section up, bolding its heading, renaming it, or providing a shortcut from the home page
Find the Ph.D. program requirements for graduation	Current Student FAQ: <a href="http://www.umich.edu/~ipcaa/currentstudent/currentfaq.html">http://www.umich.edu/~ipcaa/currentstudent/currentfaq.html</a>	The Ph.D. graduation checklist is frequently accessed information, and is not listed on the Current Student FAQ. The checklist is not made visible to the user and therefore the user must recall instead of recognize where the graduation checklist might also be found.	6	2	List Ph.D. graduation requirements in the Current Student FAQ
		All-Caps sub-heading. Breaks aesthetic guidelines.	9	1	Remove all-caps on sub-heading text
		Inconsistent sub-heading label (Image link is "FAQ", sub-heading is "FAQs from Students Enrolled in the IPCAA Program." Violates consistency.	4	2	Subheading should match the menu link label. If menu link label is not descriptive enough, make it more descriptive. (i.e., "Current Student FAQ")
		No shortcut to the Current Student Information sub-page, must use main menu link. Breaks flexibility and is not tailored for frequent actions.	3,7	2	Add a "Back to Current Student Information" page on each page under that category. This applies to other sub-sections of the web site as well
	Current Student Information: <a href="http://www.umich.edu/~ipcaa/currentstudent/index.html">http://www.umich.edu/~ipcaa/currentstudent/index.html</a>	Mismatch between sub-menu item text and the bulleted list of links. Violates consistency.	4	3	Provide only one link to the target page, or make the bulleted list easier to understand. This applies to other sub-sections of the web site as well

## Raw Individual Heuristic Evaluation Results – Jacek Spiewla (cont.)

Task Description	Web Page	Violation	Heuristic	Severity	Fix
Find the Ph.D. program requirements for graduation (cont.)	IPCAA Handbook: <a href="http://www.umich.edu/~ipcaa/currentstudent/handbook.html">http://www.umich.edu/~ipcaa/currentstudent/handbook.html</a>	The IPCAA handbook is a frequently-accessed document. Site should not make the visitor download a Microsoft Word document. Violates consistency by forcing user to move away from the web browser and launch a word editor. Violates easy information retrievability.	4,6	2	The IPCAA handbook should be in web-page format.
	N/A	No webpage with Ph.D. program requirements for graduation was found. Important content is not visible or easily retrievable.	6	3	Ph.D. program requirements for graduation should be listed on a web page that is easily and quickly accessible.
	IPCAA Handbook Document: <a href="http://www.umich.edu/~ipcaa/currentstudent/IPCAA_handbook.doc">http://www.umich.edu/~ipcaa/currentstudent/IPCAA_handbook.doc</a>	There is no checklist for program requirements; you must read several long paragraphs to figure out the requirements. User must seek out information within the document that is challenging to find.	10	3	Ph.D. program requirements for graduation should be listed on a web page that is easily and quickly accessible. The document needs to be fixed for grammatical and spelling errors, and include an easily identifiable program requirements checklist.
Find out whether or not there is currently on-going research in Western Asia	IPCAA web site main menu	There is no main menu item that points to current/past research. User must find research information in the Core Faculty and Associated Faculty pages. Since on-going research is a main goal of the web page, it violates H2 because it does not put the information in a logical place of the web site.	2	3	Current / Past Research or Research Topics should be a web page accessible from the main menu. Add an interactive map of research topic locations
Find Fulbright Grant application for Study Abroad	Graduate Student Fellowships and Awards: <a href="http://www.umich.edu/~ipcaa/currentstudent/fellowships.html">http://www.umich.edu/~ipcaa/currentstudent/fellowships.html</a>	Page is very long and is easy to get lost in the long list of fellowship opportunities. Does not provide a shortcut to access the information easier. Makes users remember where on the page an individual fellowship is located.	6,7	2	Organize the fellowship list: -Give an overview of the types of fellowships available and provide cross-reference links to them -Provide a bulleted list of all fellowships listed with cross-reference links to them in the same page
		Content is not up to date. Violates by not being in sync with the user's date expectations (it's future, not past, for deadlines)	2	1	Deadlines for fellowship opportunities are not up to date
Find application for U of M Museum Studies Program	Museum Opportunities: <a href="http://www.umich.edu/~ipcaa/opportunities/museum.html">http://www.umich.edu/~ipcaa/opportunities/museum.html</a>	Section headings do not stand out. Does not provide a shortcut to access a section faster. Makes users remember where on the page an individual section is located.	6,7	1	Section headings on sub-pages should be bolded or an outline provided at the top of the sub-page with cross-reference links. This applies to other sub-pages of the web site as well.
		Link to museum to studies program leaves the web site. This is not conducive to a consistent browsing experience.	4	1	Open external links in a new window or tab. Open internal links in the same window or tab.

## Raw Individual Heuristic Evaluation Results – Jacek Spiewla (cont.)

Task Description	Web Page	Violation	Heuristic	Severity	Fix
Contact, via e-mail, the Graduate Student Advisor	Contact Us: <a href="http://www.umich.edu/~ipcaa/contact/index.html">http://www.umich.edu/~ipcaa/contact/index.html</a>	Confusing first paragraph - will everyone get the e-mail I send? Should I address the e-mail to one of those three people? This is an error-prone condition that causes confusion with the reader.	5	1	Clarify introductory paragraph. Either create one e-mail address that is labeled as a "requests, inquiries, and other general questions" or create three separate ones for each IPCAA roles (Graduate Advisor, IPCAA directory, Student Services Assistant)
Other	All Pages	Page is not centered on screen.	8	1	Center the page contents
		Background image is tiled when web site is viewed at high resolutions (1600 x 1200)	8	1	Allow fluid layout for various screen resolutions and scale the background image
		Contact information is not listed on every page. Users must leave the page they are currently viewing to get the contact information on a different page.	7	1	Contact information should be in the footer of every page.
	Sub-pages i.e., <a href="http://www.umich.edu/~ipcaa/contact/index.html">http://www.umich.edu/~ipcaa/contact/index.html</a>	"Back to Top" link is easily overlooked because it is placed next to an image, is written in a small font, and is left-aligned. Violates heuristic because it doesn't provide a usable shortcut because it is hard to notice it.	7	1	Make "Back to Top" a larger font, right-aligned
		"Back to Top" links is placed on pages that are very short. Not appropriate to place a return to top link on pages that are very short.	1	1	"Back to Top" should be placed on pages that are longer than one screen height.

## Raw Individual Heuristic Evaluation Results – Brian Wilson

Task Description	Web Page	Violation	Heuristic	Severity	Fix
Find out what application materials to submit when applying to IPCAA's Ph.D. program	Prospective Student Information: <a href="http://www.umich.edu/~ipcaa/prospectivestudent/index.html">http://www.umich.edu/~ipcaa/prospectivestudent/index.html</a>	1) Three links to same info on page, each labeled differently: Admissions and Prerequisites Details of Application Process The Admission Process and Prerequisites  2) Color/contrast for link in text makes visibility of link difficult	4 8	2 2	1) Commonize on description 2) Change color / font / font-style on embedded link
	Admissions and Prerequisites: <a href="http://www.umich.edu/~ipcaa/prospectivestudent/admissions.html">http://www.umich.edu/~ipcaa/prospectivestudent/admissions.html</a>	To return to previous page user needs to hit browser back button, or select item from top menu.	3	2	Edit page title markup to include link back to main Prospective Student page.
Find the Ph.D. program requirements for graduation.	Current Student FAQ: <a href="http://www.umich.edu/~ipcaa/currentstudent/currentfaq.html">http://www.umich.edu/~ipcaa/currentstudent/currentfaq.html</a>	1) To return to previous page user needs to hit browser back button, or select item from top menu. (Heuristic 3) 2) Link syntax provided to Rackham OARD, but link is not "live". (Heuristic 4,7) 3) Preliminary Exam FAQ at bottom of page: 3a) Smaller font than other FAQs on page (Heuristic 4) 3b) Links to downloadable Word document. This is not clearly explained. (Heuristic 1) 3c) Word document not on IPCAA letterhead. (Heuristic 10)	1 3 4 7 10	2 2 2 2 1-2	3c) Use PDF for FAQ doc.
	Rackham Forms: <a href="http://www.umich.edu/~ipcaa/currentstudent/forms.html">http://www.umich.edu/~ipcaa/currentstudent/forms.html</a>	To return to previous page user needs to hit browser back button, or select item from top menu.	3 4	2 2	
Find out whether or not there is currently on-going research in Western Asia	Fieldwork & Museum Opportunities: <a href="http://www.umich.edu/~ipcaa/opportunities/index.html">http://www.umich.edu/~ipcaa/opportunities/index.html</a>	1) To return to previous page user needs to hit browser back button, or select item from top menu. 2) Does "Fieldwork" mean "active sites" or "opportunities to do fieldwork"?	2 3 4	2 2 2	
	Archaeological Fieldwork Opportunities: <a href="http://www.umich.edu/~ipcaa/opportunities/fieldwork.html">http://www.umich.edu/~ipcaa/opportunities/fieldwork.html</a>	To return to previous page user needs to hit browser back button, or select item from top menu.	3	2	

## Raw Individual Heuristic Evaluation Results – Brian Wilson (cont.)

Task Description	Web Page	Violation	Heuristic	Severity	Fix
Find out whether or not there is currently on-going research in Western Asia (cont.)	Archaeological Fieldwork Opportunities: <a href="http://www.umich.edu/~ipcaa/opportunities/fieldwork.html">http://www.umich.edu/~ipcaa/opportunities/fieldwork.html</a>	Link out to Kelsey Musuem site describing Tel Kedesh. Not completely clear that this link is to an external site.	1	2	
Find Fulbright Grant application for Study Abroad	Current Student Information: <a href="http://www.umich.edu/~ipcaa/currentstudent/index.html">http://www.umich.edu/~ipcaa/currentstudent/index.html</a>	Syntax is different in link at top of page, and link at bottom of page	2 4	2 2	
	Graduate Student Fellowships and Awards: <a href="http://www.umich.edu/~ipcaa/currentstudent/fellowships.html">http://www.umich.edu/~ipcaa/currentstudent/fellowships.html</a>	1) To return to previous page user needs to hit browser back button, or select item from top menu. (Heuristic 3) 2) Page title doesn't match menu description. (Heuristic 4) 3) Link to Rackham in first paragraph is embedded in text. Not consistent with other pages. (Heuristic 4) 4) "click here" downloads a PDF file. Not clearly explained. (Heuristic 1) 4a) PDF file not on IPCAA letterhead. No issue date. Funky font used. (Heuristic 5, 10)	1 3 4 5 10	2 2 2 2	
		1) Deadline dates listed are not up to date. 2) Link out functions correctly	5 10	2 2	
Find application for UofM Museum Studies Program	Fieldwork & Museum Opportunities: <a href="http://www.umich.edu/~ipcaa/opportunities/index.html">http://www.umich.edu/~ipcaa/opportunities/index.html</a>	Link broken: <a href="http://www.umich.edu/%7Eummsp/overview.html">http://www.umich.edu/%7Eummsp/overview.html</a>	9	4	Edit markup to correct link syntax
	- Prospective Student Info - FAQs - Embedded link to MA and Certificates - Embedded Museum Studies link	Link syntax not consistent: - Some are embedded - Some are explicit URLs and live linked - Some are explicit URLs, but not live linked	4	2	
Contact, via e-mail, the Graduate Student Advisor	IPCAA Core Faculty: <a href="http://www.umich.edu/~ipcaa/faculty-staff/core.html">http://www.umich.edu/~ipcaa/faculty-staff/core.html</a>	To return to previous page user needs to hit browser back button, or select item from top menu.	3	2	Edit markup for page header to include link
	IPCAA Staff: <a href="http://www.umich.edu/~ipcaa/faculty-staff/staff.html">http://www.umich.edu/~ipcaa/faculty-staff/staff.html</a>	1) To return to previous page user needs to hit browser back button, or select item from top menu. 2) No e-mail listed for Alex	3 10	2 3	1) Edit markup for page header to include link 2) Add e-mail address to other contact information

## Figure 1: Example of a Ph.D. Program Requirements Checklist

University of Michigan School of Information 2008-09 Doctoral Handbook  
<http://www.si.umich.edu/phd/phd-handbook.pdf>

**Doctoral Program Coursework**  
 Tracking and Planning Sheet (TAPS)  
*For Students Entering After Fall 2006*

Name: \_\_\_\_\_

**SI Coursework – 700 or above (15 Credits Required)**

Course Title	Course Number	Year and Term Taken	Credit Received
Foundations Seminar (required)	701	F & W	
<b>TOTAL (Must equal 15)</b>			

**Research Methods and Theory (12 Credits Required)**

Course Title	Course Number	Year and Term Taken	Credit Received
Research Methods (required)	840	F	
<b>TOTAL (Must equal 12)</b>			

**Cognates (4 Credits Required)**

Course Title	Course Number	Year and Term Taken	Credit Received
<b>TOTAL (Must equal 4)</b>			

**Additional Courses**

Course Title	Course Number	Year and Term Taken	Credit Received
<b>TOTAL</b>			

<b>TOTAL COURSE CREDITS</b>	<b>(Must Equal At Least 36)</b>	
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**Figure 2: Example of a Ph.D. Program Requirements Checklist**

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**MILESTONES**

Pre-candidate research proposal approved  
(Due January 15, 1st year)

Term Completed: \_\_\_\_\_

Pre-candidate research paper completed  
(Due January 15, 2nd year)

Term Completed: \_\_\_\_\_  
Reader 1 \_\_\_\_\_  
Reader 2 \_\_\_\_\_

Field prelim passed  
(Completion by end of August of 2nd year)

Term Completed: \_\_\_\_\_  
Reader 1 \_\_\_\_\_  
Reader 2 \_\_\_\_\_  
Reader 3 \_\_\_\_\_

Achieved candidacy  
(Completion by September 1 of 3rd year)

Term Completed: \_\_\_\_\_

Teaching requirement completed  
(Term 1 - during 3rd or 4th year)

Course # \_\_\_\_\_ Term & Year \_\_\_\_\_

Teaching requirement completed  
(Term 2 - during 3rd or 4th year)

Course # \_\_\_\_\_ Term & Year \_\_\_\_\_

Additional Teaching

Course # \_\_\_\_\_ Term & Year \_\_\_\_\_

Dissertation committee approved

Date: \_\_\_\_\_

Chair/Co-chairs  
(One from SI)

\_\_\_\_\_

Cognate member  
(May not hold appointment at SI)

\_\_\_\_\_

Additional members  
(At least one from SI)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Dissertation proposal defense

Date Completed: \_\_\_\_\_

Dissertation final oral defense

Date Completed: \_\_\_\_\_