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Capstone Project
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M3-The Design of MyStatus

Summary

MyStatus is the redesign of the Graduate Student Status page in the Accessplus. The focus of this study are overall graduate students. The goal is to minimize the problems of the current system and make it more usable, useful and easier to use. This new process should be easier and less stressful than the existing processes discovered in the user research, so that graduate students may confidently monitor their graduation process in their academic program. It will be used most often by students who are about or plan to graduate to check their graduation status, edit POS form and apply for graduation.

The MyStatus will be eventually evaluated for its usability and effectiveness, as conceptual designs are created to gather further improvements based on peer review, and as part of iterative design process it provides foundation to create working prototype for testing.

Requirements

The users will be able to: 1) go to their graduate student status page, check their major, department, graduation information, etc. To do this task, they need to login to their Accessplus and click on the graduate student status page. Then they need to look at the page to find the information all about their academic information, graduation, etc. 2) check or fill out POSC form. They go to the POS form by clicking on the "POSC Form" button. 3) check or apply for graduation. Upon the requirement shown on the front page whether they need to apply for graduation based on the deadline in the specific semester, they can decide if they just want to check the status of their graduation application or go ahead to fill out the graduation application form.

Design Space

Design for all types of users vs. on campus graduate students only

As discussed before, the focus of this study are overall graduate students. Although secondary stakeholders are faculty and staff, and some other people can be influenced such as IT staff who work on this page, the most crucial group is graduate students. Since they need to interact with this page often, it is critically important for them to be on the top of all the processes and paperwork of graduation. As for the most popular user groups and the most significant influence of this page for them, this study will mainly focus on overall graduate students. Regarding the most common student type is on campus student and their easier accessibility than online students, the focus is narrowed to on campus graduate students. Once the redesign work is done, it would also benefit all user types for the design guidelines.

Some features vs. whole page

The redesign of the graduate student status and its affiliated pages will focus on specific features or the layout of the page. Therefore, not all the buttons will be working in the prototype. Only

the specific ones will be tested. Although this work tries to show the high quality of all the pages, limited by time and research scope, the features to be tested will have working functions in the prototype in the next phase.

Students' different situations vs. templates

Everyone's situation will be different regarding different program, courses, credits requirement, etc. For example, PhD and Master's need different number of committee members, credits and research requirement. This work will focus on improving the current system that doesn't show the status clearly such as it is not obvious to know whether you've already applied for graduation yet. Since the look of different students POS form vary significantly, this work will provide several templates in the prototype. Also, the exceptional graduation cases will not be considered in this design work.

The Design

Overview

With the research in M2 and the user story from both my personal experience and experience from my friends, the conceptual design is to solve the problems identified.

First, students who are trying to graduate need to submit Program of Study (POS) forms, apply for graduation, request for Final Oral Examination (for thesis students), etc. Each step has a specific deadline for different semester. Program coordinators always give reminders to students. But students and their advisors may want to be able to check their graduation status and also see the updates once they make actions. The current status page sometimes can confuse students by not emphasizing the things they need to do. Meanwhile, as the green and orange colors are in use for a large area, it could distract users from knowing which they should focus on and which has already been taken care of. Especially for green red color blind people, it may pose further vision difficulty for them.

Secondly, for students who are about to graduate, they need to check whether their coursework or research credits meet the requirements. Especially for those who are pursuing double majors or multiple majors, they need to make sure their coursework and committee approvals and everything on their POS form is correct. However, the current POS form is not very clear at the course and research credit classifications. Also, selecting the course in order to fill out POS form from the drop down menu takes a lot of effort and time. It should be simplified to save time.

Collectively, the current page is comparatively confusing. It could better assist students during their studies and even relieve stress for students who are busy preparing for graduation. MyStatus can solve the problems aforementioned and make it a more consolidated and usable tool for students, faculty and staff.

Usage scenario and illustrations

The persona used in the design is for Abby Brown, who is a M.S. student pursuing current majors of Industrial Engineering and Human Computer Interaction. She plans to graduate in Spring 2016 but she hasn't applied for graduation and requested the final oral exam. Therefore,

she wants to check her POS form to see if it's already completed. Then she needs to apply for graduation.

1) She logs in to her MyStatus page (Figure 1). The first page is her first major with her program summary listed. Buttons at the top show yellow when it is selected.
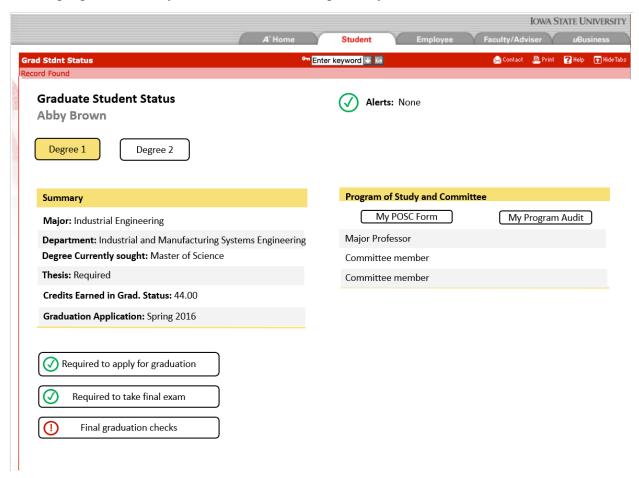

Figure 1 MyStatus Page

2) She then clicks on button 'Degree 2' to check information of her second major. The second major page can be seen in Figure 2.
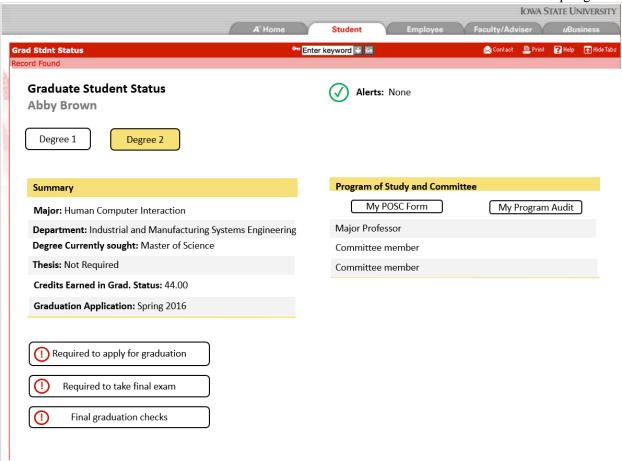
Figure 2 Second Major Page

3) When she is checking her second major information. She finds that she hasn't applied for graduation as well as requested the oral final exam, since she sees icon ⊕ at the action button at the bottom, which means the action is needed. She wants to check what is needed. Abby clicks on the first button.

'Required to apply for graduation' to check the graduation status (Figure 3).

Figure 3 Check Graduation Status

4) She decided to apply for graduation for spring 2016 semester (Figure 4). By hovering over 'Graduation Application Submitted', it becomes a button 'Apply for Graduation' that you can hit to go to application page.

Figure 4 Apply for Graduation

5) Abby selected the semester she wanted to graduate and filled out the application form. After she submitted her application, she can easily check its status, change its information and withdraw it (Figure 5).

Figure 5 Check Application Status

6) After applying for graduation, she wants to check whether her POS form has already met the requirements. By clicking on POS form button, she got to see her POS form. Her POS Form has already been approved, so she just wanted to check it and see whether she needs to modify it. The POS Form can be seen in Figure 6.

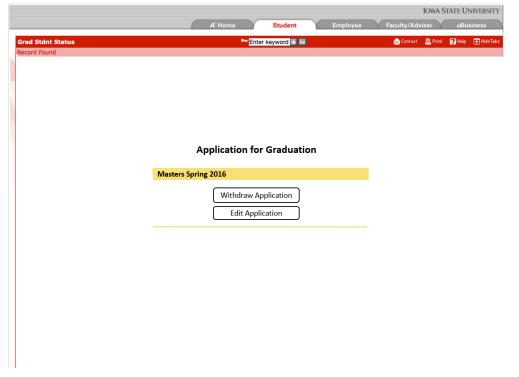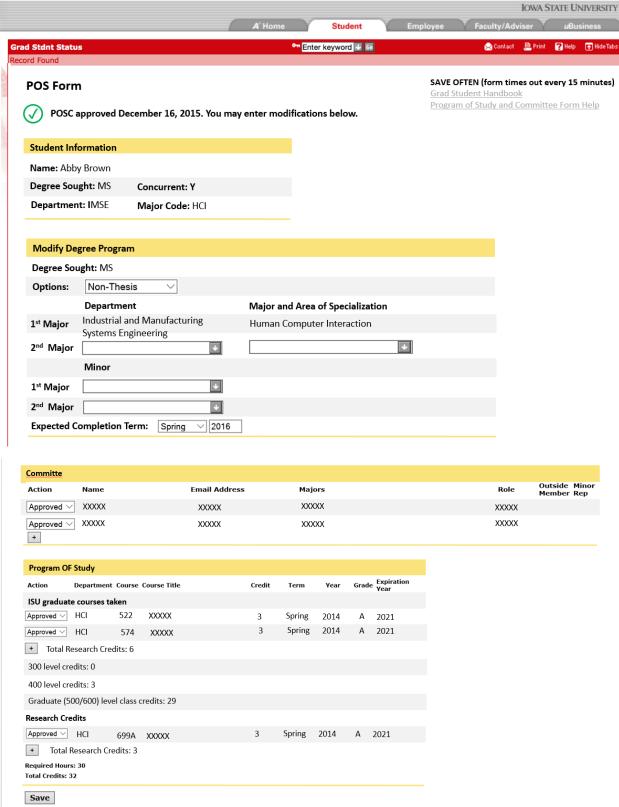IOWA STATE UNIVERSITY

| A² Home | **Student** | Employee | Faculty/Adviser | *u*Business |

Grad Stdnt Status   ⊙ Enter keyword ⬇ Go   ✉ Contact 🖨 Print ❓ Help ⬆ Hide Tabs

Record Found

POS Form

SAVE OFTEN (form times out every 15 minutes)
Grad Student Handbook
Program of Study and Committee Form Help

✓ POSC approved December 16, 2015. You may enter modifications below.

Student Information

Name: Abby Brown

Degree Sought: MS   **Concurrent: Y**

Department: IMSE   **Major Code:** HCI

Modify Degree Program

Degree Sought: MS

Options: | Non-Thesis ∨ |

	Department	Major and Area of Specialization
1st Major	Industrial and Manufacturing Systems Engineering	Human Computer Interaction
2nd Major	[⬇]	[⬇]
	Minor	
1st Major	[⬇]	
2nd Major	[⬇]	

Expected Completion Term: | Spring ∨ | 2016 |

Committe

Action	Name	Email Address	Majors	Role	Outside Member	Minor Rep
Approved ∨	XXXXX	XXXXX	XXXXX	XXXXX		
Approved ∨	XXXXX	XXXXX	XXXXX	XXXXX		
+						

Program OF Study

Action	Department	Course	Course Title	Credit	Term	Year	Grade	Expiration Year
ISU graduate courses taken								
Approved ∨	HCI	522	XXXXX	3	Spring	2014	A	2021
Approved ∨	HCI	574	XXXXX	3	Spring	2014	A	2021
+ Total Research Credits: 6								
300 level credits: 0								
400 level credits: 3								
Graduate (500/600) level class credits: 29								
Research Credits								
Approved ∨	HCI	699A	XXXXX	3	Spring	2014	A	2021
+ Total Research Credits: 3								

Required Hours: 30
Total Credits: 32

[Save]

Figure 6 POS Form

Future Technologies & Social Implications

Emerging Technologies

The user research for this work was through interviews and observations. Users were asked to perform the tasks and used think out loud technique (Dix, Finlay, Abowd, & Beale, 2007) to speak out about their pain points using this web page, since the tasks involved in the system were very commonly used for graduate students. Also, as I am one of the users for this system, I know the task very well. Therefore, I save the effort to learn the tasks. But in the real world, designers need to observe, learn or actually perform the tasks in order to design for users. The user research would utilize ethnographic method (Garrett, 2003)where designer participates in the tasks.

Other than the user research, the prototype of MyStatus will be coded into responsive design so that it can be viewed by both web and mobile versions. So the layout will be automatically adjusted based on different devices and show the most optimized layouts.

Regarding the iterative user-centered design process, the peer review can use the technique (Dix et al., 2007). Also expert assessment can also be added to evaluate the effectiveness of the system. For example, experts can adopt heuristic evaluation.

As far as the usability test for MyStatus, this work will adopt measurement of System Usability Scale (SUS) (Sauro, 2011), a simple, ten-item attitude Likert scale giving a global view of subjective assessments of usability, and Net Promoter Score (Garrity, 2010), a management tool that can be used to gauge the loyalty of a firm's customer relationships. Due to users' completely different status of their studying progress, it would be very difficult to compare across the time durations for different users using this page. For example, some users have only one major and others are pursuing double majors, they time of filling out their POS from differ significantly. Also different users have very different courses and departments as well as majors. Additionally, due to the same reason that each user's situation is very different, the time or clicks completing the tasks between the current page and the new page is not comparable. For further testing utilizing emerging technologies, some physiological sensors can be used. One option can be eye tracker, it can capture users eye moving activities. It would be easier to know where people focus on or where it is easy for people to ignore. Further modifications will be done based on those data. Other physiological sensors can also be EEG, face reader, etc.

Ethical Implications

MyStatus is an educational platform that helps graduate students to schedule their graduation process. Based upon this context, there are many social implications that may arise. Social media is becoming more and more popular among students. People share their interests, career path or their school activities on the social media so that friends exchange their thoughts, and people connect with each other according to the same interests.

In this phenomenon, MyStatus can connect with other social media. For example, when someone wants to minor a certiain major, they can post their questions in the study forum. At the same time, it can connect with LinkedIn. On LinkedIn, people can see what courses students learned and what the most majors lead to specific jobs. Some other examples can also be people who are in the same major can meet together to discuss their graduation plan, thesis topics or research. This will be beneficial for people to make friends, talk to others, solve problems, instead of sitting in their offices doing their own work and living their own graduate school lives.

Additionally, as mentioned before, MyStatus can connect to LinkedIn or other professional platform. In this way, recruiters can look for people based on their skill set or courses taken. Nowadays, recruiters basically look at applicant's resumes or cover letters while only resume is not enough to know applicants skillset. If recruiter can know what those candidates learned in school, they are likely know candidate better before they make the decisions.

However, if recruiters can have access to candidates' school courses or thesis, it may involve privacy. Since applicants may not want their recruiters to know everything about their background. Thus, social media is a good thing to connect people and do social network, but it sometimes interferes with personal privacy or data overwhelming.

With the redesign of the graduate student status, it solves many problems of the current pages. The current page is comparatively confusing and couldn't better assist students during they studies, and even pose more stress for students who are busy preparing for graduation. It can mislead students in the graduation process. The users I interviewed reflected it is hard to use or it made them even more confused about their graduation status. It's not beneficial to remind them their status and check whether their actions were successfully updated. Therefore, MyStatus can better help students, faculties and staffs. This resolves the potential problems that may influence students when they are already stressful in their academic work.

Reference

Dix, A., Finlay, J., Abowd, G. D., & Beale, R. (2007). *Human-Computer Interaction* (3rd ed.). Harlow: Prentice Hall.

Garrett, J. J. (2003). *The Elements of User Experience: User-Centered Design for the Web* (2nd ed.). New York, NY: New Riders.

Garrity, J. (2010). Drive Customer Loyalty with Net Promoter Score. *ABA Bank Marketing*, *42*(9), 30–33. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=55381407&lang=de&site=ehost-live

Sauro, J. (2011). Measuring Usability with the System Usability Scale (SUS). Retrieved from http://www.measuringu.com/sus.php