Heuristic Evaluation and Usability

Testing of Canvas

Z516 Human Computer Interaction

Brittany, Yang, Jennifer, Archana, John

Introduction

Our group evaluated Canvas using heuristic evaluations and usability testing. Canvas is a learning management system which is being phased into use at Indiana University to replace the past system, Oncourse. As more and more professors begin to incorporate Canvas into their classes, problems are encountered by students, who are ultimately the largest group using the system. Through heuristic evaluations, conducted by Archana and Brittany, and usability testing, conducted by Yang and Jennifer, we will draw conclusions on the user experience with Canvas.

Because students are our primary users for this evaluation, we identified our high level goal as identifying problems with Canvas through our use of heuristic evaluations and usability testing. By going through the system with users, we were able to concretely show the problem areas that still exist in Canvas as it is phased into use at Indiana University. This over-arching high level goal has a few lower level goals under it that were taken into consideration in the evaluations and testing. The low level goals that we decided on were to identify problems in the navigation of Canvas and to try to identify any interface issues. A number of our heuristics for the heuristic evaluations directly served the low level goals, such as flexibility and ease of use. This heuristic directly evaluated both the navigation and the interface of Canvas.

Plans/methods/considerations

The heuristics group met on Thursday to decide which of Nielsen's heuristics to use for the evaluations and to also decide on five other heuristics to be included in the evaluations. Our entire group met on Saturday (Wells Library Scholars' Commons Consultation Room 157J) in a group room at the Well's Library after deciding on doing our testing and evaluations on Canvas

in class on Tuesday. We discussed the high level goal we would focus on in our evaluations and testing and planned to have all of our interviews finished in the next week. We created Google docs to share the results of our evaluations and interviews and used Google Docs to record notes from the meetings and to compile the final document. We met on Saturday, 4/25 in the ILS lab to discuss the final document and our upcoming presentation. We decided on which sections needed to be fleshed out and also which aspects of the evaluation and different sections of the document.

Availability

	Brittany	**Yang**	**Jennifer**	**Archana**	**John**
Monday	before 1pm after 5pm	1-4:30pm all evening	before 1pm	after 4:15 pm	3-9pm
Tuesday	after 5:15pm	before 4pm after 5:15pm		8 - 4pm	
Wednesday	before noon after 5pm		before 1pm		10-1pm
Thursday	after 5:15pm	before 4pm	after 5:30pm	8 - 4pm	before 3pm
Friday	before noon after 5pm	1-3pm	all day	11 - 4pm	2-4pm
Saturday	all day	all day	all day	8 - 4pm	before 3pm
Sunday	all day	all day	all day	8 - 4pm	all day

Our group shared our availability to meet at the beginning of the assignment.

Heuristic Evaluation

For the heuristic evaluations, we met with two people who we considered to be expert users of Canvas. The first task the team took over was to finalize a list of five (5) heuristics from the available list of *10 Usability Heuristics for User Interface Design* by Jakob Nielsen. Below is a list of five heuristics that the team finalized:

1. Aesthetic and Minimalist Design

   The team wanted to find out about the websites design and if relevant information is being presented to the user. The idea was to evaluate the website on the visibility of relevant and irrelevant information. Since Canvas is used by students, instructors AIs etc. we wanted to find out how the design adapts to different types of users.

2. Flexibility and Efficiency of Use

   The team also wanted to evaluate Canvas on how efficient it is to use the website for any user. We also wanted to know about how flexible Canvas is and how well it caters to experienced or inexperienced users. For example how different it is for a new student to use Canvas as opposed to someone who has been using it for a few years.

3. Help and Documentation

   Canvas is frequently used by students and instructors, new or experienced, and there is always a need for some sort of help when they encounter an issue. The team thought it would be an important usability feature to evaluate. So we asked expert users about how

easy it is for them to find help on the website, or appropriate documentation that focuses on user tasks and is easy to follow.

4. Recognition rather than Recall

For a website that is so frequently used by people at IU, the website's recognition feature is of utmost value. The team seeked out to know, from expert users, how the objects, actions and options on the website limit the user's memory load. The users ability to recognize objects within the website, as opposed to recall, were evaluated in this heuristic.

5. Visibility of System Design

The team thought that it is important to evaluate the visibility of system status as a website like Canvas is used by students and instructors at IU for multiple purposes. Being aware of the system status and receiving appropriate feedback within reasonable time frames is important for users.

After choosing five of Nielsen's Heuristics to incorporate in our evaluation, we created five additional heuristics specifically for Canvas. The five additional heuristics were:

1. Ability to Contact Users

Users should be able to contact other Canvas users when necessary and appropriate. This could include the chat function as well as email and additional contact methods. User

contact information, such as email addresses, are not automatically added to Canvas.

Contact information can be added by individual users if they choose to do so.

2. Searchability of Site Content

Site content should be searchable throughout different parts of the website and their

search results should be relative to their queries. Canvas does not have a search function

for the entire system, but several search bars for sections within Canvas, such as

discussion boards.

3. Efficient Loading Times

When addressing this section, evaluators looked at both the loading time for Canvas as

well as downloading times for various items within Canvas. We believe users should not

have to wait long periods of time for these things.

4. Absence of Outdated Information

Users should not find outdated information or outdated files on Canvas. This might

include old files posted by professors, as well as access and the ability to edit assignments

or grades from previous semesters.

5. Appealing Graphic Design

We believe the graphic design should not only be appealing, but also appropriate for

Canvas. It should be simple and should not distract users from important information. It

also should not make tasks harder to complete. This could include the layout of pages within Canvas as well as color schemes.

Our first expert user was Shambhavi Dhargalkar. She is a 22 year old computer science graduate student in the school of Informatics and Computer at Indiana University. Miss Dhargalkar had been using Canvas for two semesters, both as a student and as an IA. When we met with her, she was enrolled in a MOOC that required students to used Canvas weekly. We chose Miss Dhargalkar to participate in our heuristic evaluation because of her experience using the system during her time at IU.

We met on campus for the evaluation and had Miss Dhargalkar use her own laptop so that she was comfortable. Before we started, we explained what was expected of her and how the evaluation would work. We asked if she had any questions and then proceeded to conduct the evaluation. The evaluation took about an hour to complete and several points were revisited and comments were added about a couple of the heuristics. The notes are attached in the Appendix section as *2.2*.

For our second heuristic evaluation, the team met up with Aleesha H who is a doctoral student in Information Science at IU. Having completed her Master's studies here as well as pursuing her doctoral studies, she has had a lot of experience with interacting with Canvas. She has been using Canvas for an average of 2-3 times in a day over a few years. She has had multiple classes where instructors use Canvas and she has used most of the features of the application. Her extensive

experience with the application and her understanding of almost all functionalities of the application made her an excellent candidate for being a participant of heuristic evaluation.

The day of the evaluation the team met her at a coffee shop. Before beginning the evaluation, she was briefed about the process and explained her role in the evaluation. After completing the briefing session, she was provided with the checklist of Nielsen's heuristics that were determined to be our chosen ones as well as the team developed heuristics. She spent almost 1.5 hours in going through all the items and providing her feedback. She was meticulous and provided detailed feedback on each and every heuristic. The notes are attached in the Appendix section as 2.2.

The feedback gathered from both the heuristic evaluations were then analysed by the team and the results from the analysis are discussed in the 'Conclusions' section.

Usability Testing

For our first usability testing, we chose a user that had a year and half experience with IU canvas, Katherine Li. She is senior student at Indiana University, majoring in journalism and digital arts. As a digital arts student, Katherine has a lot experience with a lot software, and she considers herself a fast learner in software. She started using canvas when IU launched Canvas for IU students. She also has three years of experience with using Oncourse.

We conducted the usability testing at her apartment. The team went over our purpose of conducting this evaluation with her (why we are using Canvas as our subject, and why we chose to evaluate it).

For our second usability testing, we choose a new user to IU Canvas, who has never used Canvas before. Yining is a high school student in Bloomington south high school. She just got admitted to Indiana University and will start her study in Computer Science in the coming fall semester. She is a future user of IU canvas and we think her user experience will provide us with a lot of fresh information. She has about 10 years of experience in using computer and she has never used Canvas before. Her current high school offers somewhat similar online student learning management system (Skyward student system).

We met her on campus for usability testing. We provided her our laptop and gave some time to get familiar with it. At first, she was quite nervous. We explained our test goal is to assess Canvas' usability and identify barriers that might hinder students from using it. For the test, she was asked to complete 6 scenarios and a post-task questionnaire. During the test, we asked her a few questions and her feelings, while using an screen recorder "Screencast-O-Matic" to record all her navigation and comments to the testing scenarios. The notes are attached in the Appendix section as 1.2.

Conclusions/Discussion

Ability to Contact Users

Users found it to be extremely difficult to locate contact information for other users of Canvas. Most of the users evaluated Canvas and mentioned that Canvas only allows them to locate another user's profile. If the user chooses to not display their contact information, it becomes impossible to get in touch with another user. One of the users mentioned that basic email information about a user should be present on the website. Another user mentioned that the blank space under "Contact Information" is misleading and she automatically assumes that there is no contact information present on the website. The screenshot below shows us a user's profile page that doesn't include any contact information.
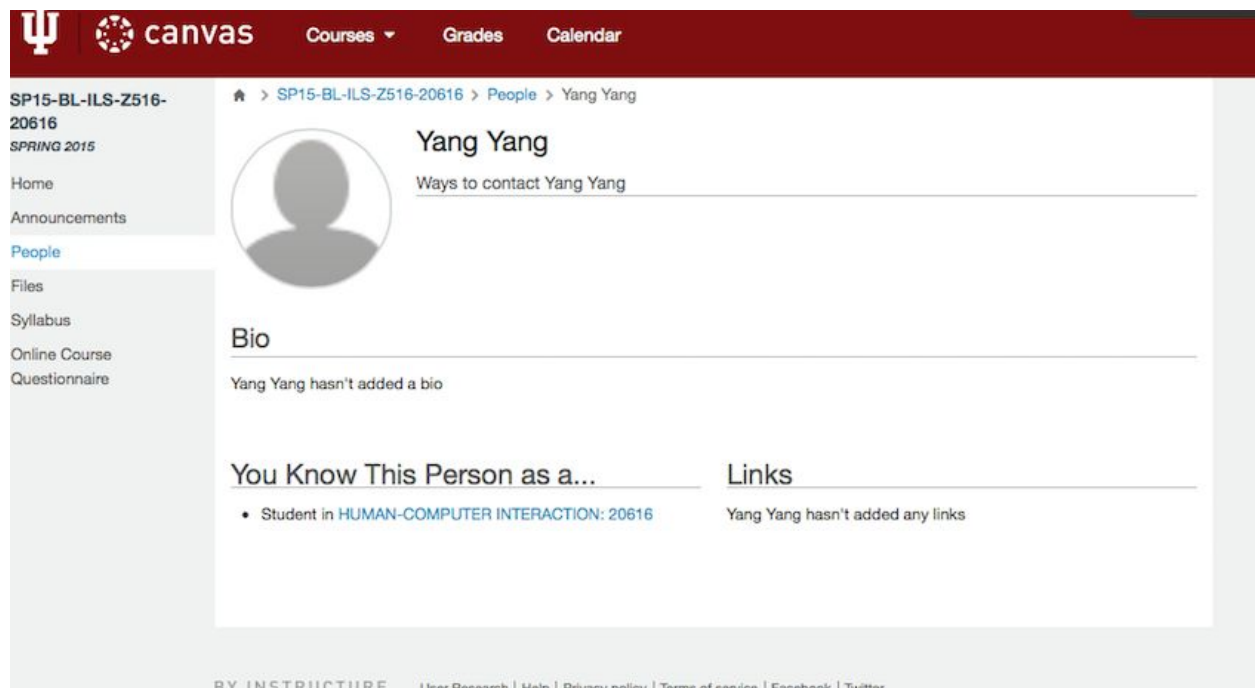
As visible, there is no way a user can contact another user unless the information is explicitly mentioned by a user on Canvas website.

Suggestions:

- Canvas could automatically list users' IU email address under the "People" section, as well as on their profiles.

Searchability

Almost all of our users mentioned the lack of an explicit "Search" bar on the website. They also noted that search functionality is located within various subsections but there is no search bar for the entire website. Attached below is a screenshot that points out the lack of a search bar on home page.
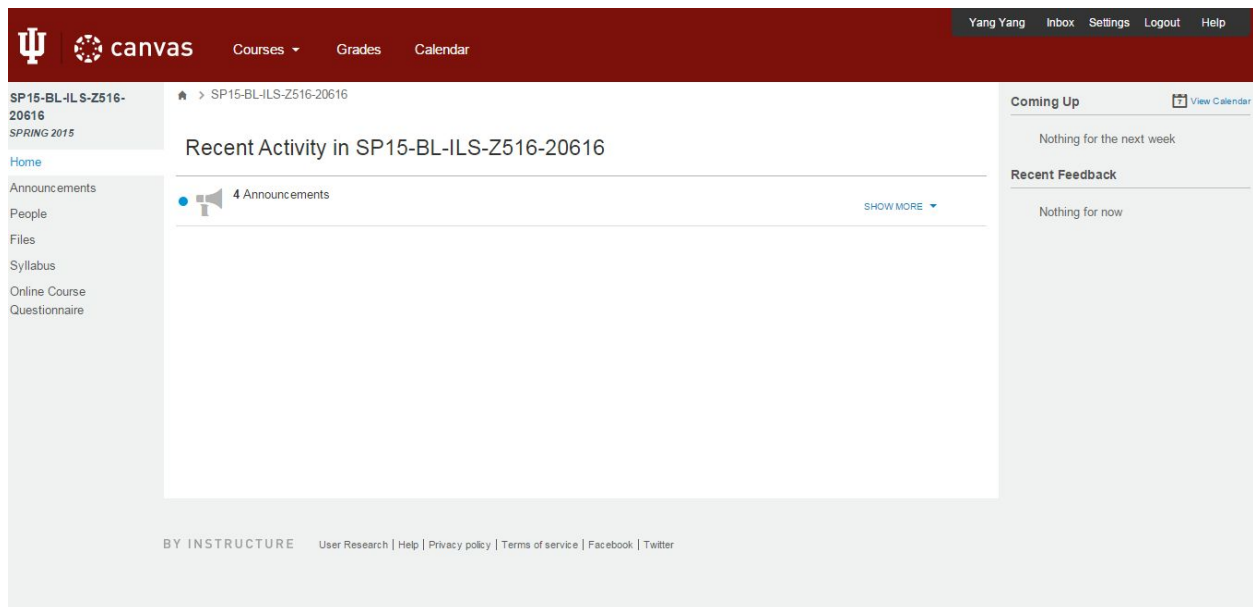
Some users felt the need for a search functionality as one user pointed out, there were multiple occasions where due dates for the same assignment were different depending on where she looked on Canvas. She believed this was because her class was a MOOC and had many different kinds of students. Search functionality for specific due dates would have been helpful.

Suggestions:

- Incorporate a search bar on the global navigation, in addition to having the individual search bars for specific sections

Appealing Graphic Design

All participants found the graphic design of Canvas to be appealing. They did not believe that it was distracting or made tasks harder to complete. We believe this is an area of the system that Canvas has successfully executed.

Suggestions:

- We have no suggestions at this time regarding the graphic design of Canvas
- Graphic design changes may be made in the future after Canvas is updated

Absence of Outdated Information

Some users had problems with outdated information being displayed. This was an issue for several reasons. First, valuable space was being used by information that was no longer relevant

or helpful to students. This could make it harder for students to find the information they actually need. She also thought it was strange that she was able to access and edit important information, such as student grades, from previous semesters. Below is an example of when outdated information is displayed on Canvas. Not only are the user's current courses listed, but courses from previous semesters are available as well.
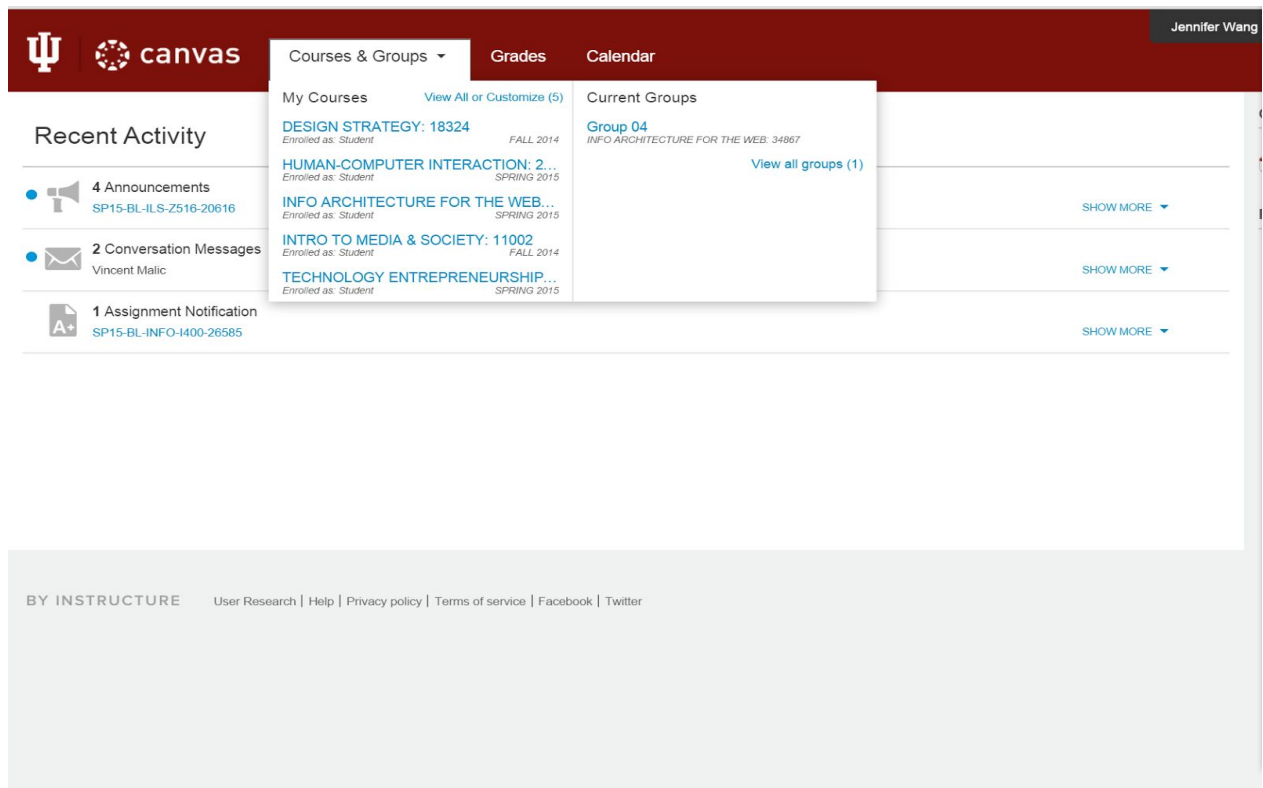

Suggestions:

- Remove old courses from course tab

- Possibly move previous course information to another section, but don't allow AIs to modify student grades or assignments.

Help and Documentation

This feature within Canvas has been the least useful for users. Users have mentioned that they

"Help" button located within Canvas isn't very helpful as it doesn't list exact steps to solve an

issue. When a user clicks on the "Help" button they receive a list as attached below:
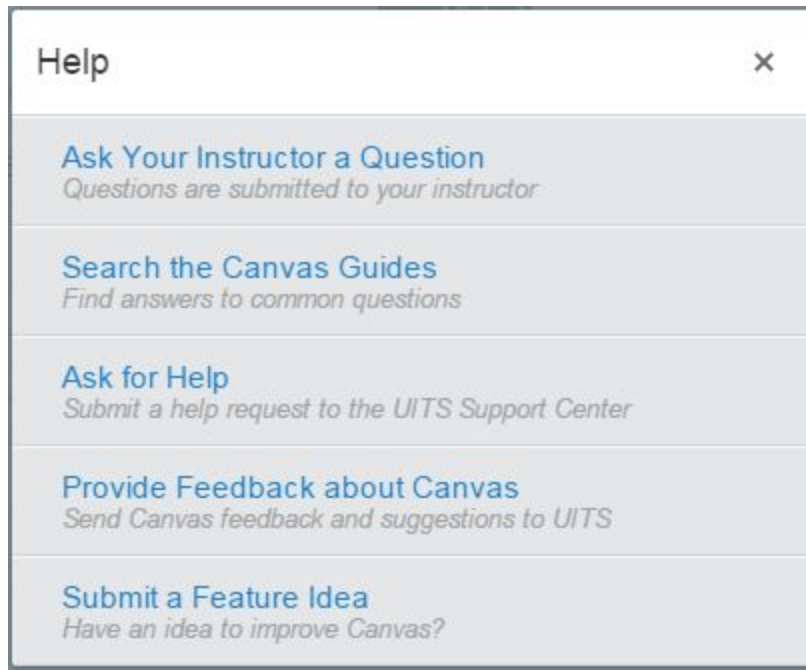
User can only reach out to other people for help.

Users can also click to search the Canvas guides. Users mentioned that Canvas guides is filled

with articles a lot of information and the search engine is not that great with providing answers,

within Canvas guides. Below is a screenshot of Canvas guides page and the abundance of

information on the page.

A layout like this doesn't help with users finding documentation that is focussed on user's tasks, is easy to follow and is not too large.

Below is a screenshot of the user help form that users can use to ask question. As pointed by the user who evaluated this website, this information is not very helpful.

Canvas Help Form

For immediate assistance, contact your local Support Center.

All fields are required

User Information

IU Username: [   ]

E-mail: [   ]

Campus: [Please choose... ▼]

Problem Detail

SiteID or Course/Section#: [   ]

Tool: [Please choose...   ▼]

Operating System: [Please choose... ▼]

Web Browser: [Please choose... ▼]

Detail: [   ]

[Submit] [Cancel]

Suggestions:

- Change the layout of the help page. Change label names and descriptions to avoid any confusion.

- Include an FAQ page within global navigation that lists answers to some frequently asked questions.

Downloading and Uploading Items in Canvas

Users concluded that loading times for Canvas were reasonable and did not find any issues with this part of the system. Some participants believed the system did not give any clues as to how to download files. For instance, the system did not display any download options until the user had selected the file they want to download. The first image below shows what the screen looks like before the user selects the file. The second image shows what the screen looks like when the user has selected the file.

Suggestions:

- Create a visible download button that users can easily find without having to click on the files they wish to download
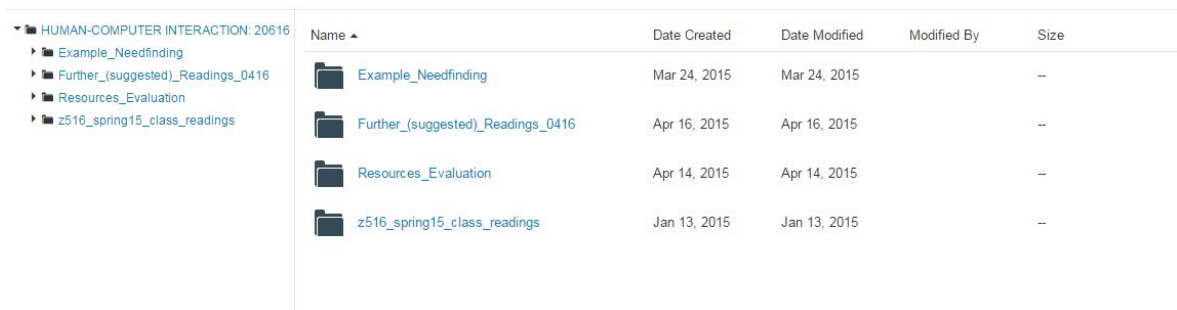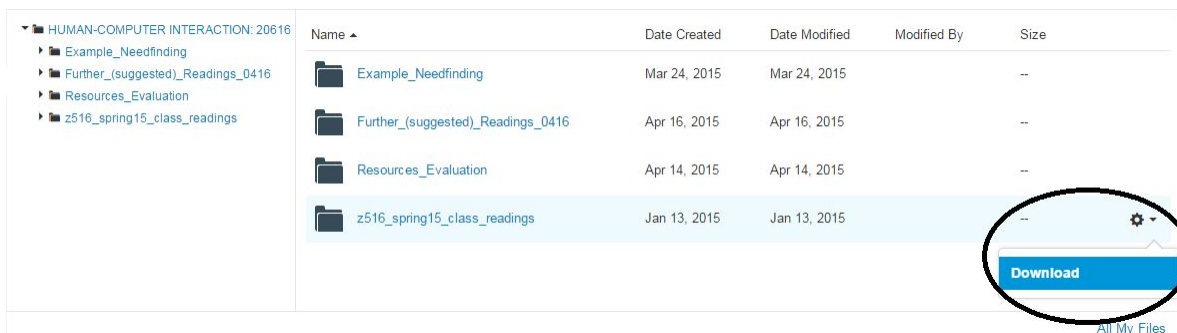
Misleading/Incomplete Information

During evaluation a user mentioned that some of the information presented within the website is misleading and confusing. Attached below is a screenshot of the courses page.
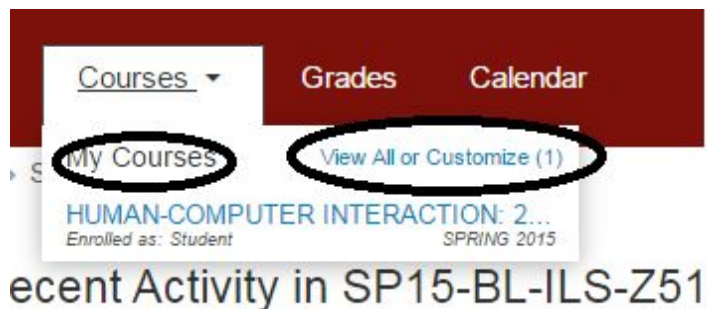
If the user wants to find all the courses they are enrolled in, they need to click on "View All or Customize". At first instance the users think that "My Courses" is clickable, but it is not. Clicking the "View All or Customize" button, which is on the right side of "My Courses", takes a user to the Course page. Also since it is in a smaller font size and color, users don't notice it at first glance.

Suggestions:

- Make "My Courses" clickable and link it to the courses page.

- Remove the "View All or Customize".

The most important conclusion that was drawn uniformly from the usability tests and heuristic evaluations were that the "People" section of Canvas does not include contact information. The user has to upload their contact information and most people will not upload their contact information themselves. There are some ways around this problem, such as using the chat feature of Canvas, but especially more novice users will have a hard time figuring this out and will therefore be frustrated with Canvas' inability to allow students to communicate with each other. A few other issues that were found were that there is no global search bar so while a user can search through content in some sections, there is no way to search through all the content of the site at the same time.

Canvas storing outdated information was also an issue in both of the heuristic evaluations, each user having a different area of Canvas that they identified as keeping outdating information, which may ultimately slow down the site's page loading. One user said that the "Announcements" section stored outdated information and the other user mentioned that she still had access to a page on Canvas that had here AI information. This shows that in many areas of the site Canvas stores outdated information and by eliminating this users' Canvas experience may be smoother.

<u>Appendices</u>

1.1
Usability Testing

Name: katherine Li
Age: 22
Gender: Female
Major (if student): Journalism & digital arts
Experience (years, how often): 2 years experience for using Canvas
Date: 4/22/2015
Tester: Jennifer Wang

Katherine Li is a senior student at IU, She is majoring in Journalism & studio arts. As a digital arts student she often dealing with a lot different kind of software, therefore she is a faster leaner when dealing with new software. And she has 2 years experience with canvas.

Post-task Questionnaires

Task	Level （1=Very Easy, 2=Easy, 3= Neither Easy nor Difficult, 4=Somewhat Difficult, 5=Very Difficult）	Comment
task 1 login account	1	
task 2 layout	3	very clean
task 3 search for courses	1	none
task 4 find classmates' contact information	1	
task 5 send email	5	I can't find email information basic on the contact display in canvas.
task 6 download course materials	1	very easy

1.2

Usability test

Name: Yining Wang
Age: 18
Gender: Female
Major (if student): Bloomington South High school student, new to IU.
Experience (years, how often): 10 years experience in using computer
Date: 4/22/2015
Tester: Yang Yang

Task	Level （1=Very Easy, 2=Easy, 3= Neither Easy nor Difficult, 4=Somewhat Difficult, 5=Very Difficult）	Comment
task 1 login account	1	
task 2 layout	1	
task 3 search for courses	1	
task 4 find classmates' contact information	4	Because the space under "contact information" is empty, I assumed that there's no information posted on the website.
task 5 send email	3	I think "inbox" is a little hard to find and confusing to use. It'll be better to move it to the side.
task 6 download course materials	2	It's more clear if the setting icon is changed to "download" icon

Name: Yining Wang
Age: 18
Gender: Female
Major (if student): Bloomington High School South student
Experience (years, how often): 10 yrs.   (new to IU)
Date: 4/22/15   —use skyward student system

Usability test script

Hi my name is _____ and I'm going to walking you through this session today. Your participation will help our team a lot of useful feedback for improving the website you'll be working with today.

Before we begin, I have some information for you, and I'm going to read it to make sure that I cover everything.

You probably already have a good idea of why we asked you here, but let me go over it again briefly. We're asking people to try using Indiana University Canvas Web site that we're working on so we can see whether it works as intended. The session should take about 40 minutes.

The first thing I want to make clear right away is that we're testing the site, not you. You can't do anything wrong here. In fact, this is probably the one place today where you don't have to worry about making mistakes.

As you use the site, I'm going to ask you as much as possible to try to **think out loud: to say what you're looking at, what you're trying to do, and what you're thinking.** This will be a big help to us.

Also, please don't worry that you're going to hurt our feelings. We're doing this to improve the site, so we need to hear your honest reactions.

If you have any questions as we go along, just ask them. I may not be able to answer them right away, since we're interested in how people do when they don't have someone sitting next to them to help. But if you still have any questions when we're done I'll try to answer them then. And if you need to take a break at any point, just let me know.

With your permission, we're going to record what happens on the screen and our conversation. The recording will only be used to help us figure out how to improve the site, and it won't be seen by anyone except the people working on this project. And it helps me, because I don't have to take as many notes.

If you would, I'm going to ask you for a simple permission for us. It just says that we have your permission to record you, and that the recording will only be seen by the people working on the project.

Do you have any questions so far?

(login page)
First, I'm going to ask you to look at this page and tell me what you make of it: what strikes you about it, whose site you think it is, what you can do here, and what it's for. Just look around and do a little narrative.
You can scroll if you want to, but **don't click on anything yet.**

"UITS"
? ?

Thanks. Canvas is a learning management system. After an extensive evaluation process involving faculty and students, Indiana University selected Canvas to be the successor to Oncourse.

Now I'm going to ask you to try doing some specific tasks. I'm going to read each one out loud and give you a printed copy.
I'm also going to ask you to do these tasks without using Search. We'll learn a lot more about how well the site works that way.
And again, as much as possible, it will help us if you can try to think out loud as you go along.

Scenario 1 login account
I m.h. ─ easy and quick
You are admitted to IU and you heard that IU Canvas has all the information for your upcoming resisted courses. You will visit the IU Canvas website. Since you can't register any courses at IU now, I will provide you a username and password for you to login. You will use those information to finish the login process.
username:****
password:****

Scenario 2 layout
─ didn't see the [options] on the right corner
Take a moment to look at the page shown after you login. You can scroll if you want to, but **don't click on anything yet.**After you have familiarized yourself with this page, tell me: What do think about this page?

Scenario 3 search for courses
─ she expected click "courses" will show all the courses.
You are going to find all the courses you have enrolled in SPRING 2015 semester. Look at the search result and tell me:
What do you think of the result?
What do you like about it?
What do you dislike it?

Scenario 4 find classmates' contact information
─ failed
You have met some new friends on the first day in the class Human Computer Interaction. You want to find more information about them. Try to find the contact information for the person named *** and ***.

Scenario 5 send email
─ spent some time to find "inbox"
Suppose you have a question about the Human Computer Interaction and you want to find the instructor's information and sent the instructor an email through canvas.

Scenario 6 download course materials
─ didn't download the folder didn't notice the setting icon for "download" option.

Download the handout named "Further_(suggested)_Readings_0416" for Human Computer Interaction course.

Post-task Questionnaires
Please rate the following:

Task	Level (1=Very Easy, 2=Easy, 3= Neither Easy nor Difficult, 4=Somewhat Difficult, 5=Very Difficult)	Comment
task 1 login account	1	
task 2 layout	1	
task 3 search for courses	1	
task 4 find classmates' contact information	4	Because the space under "contact information" is empty, I assumed that there's no information posted on the website.
task 5 send email	3	I think "inbox" is a little hard to find and confusing to use. It'll be better to move it to the side.
task 6 download course materials	2	It's more clear if the setting icon is changed to "download" icon.

IU Canvas Usability Test Report

Executive summary

- Two individuals participated in a usability test of Indiana University Canvas website, URL: https://canvas.iu.edu/lms-prd/app, a place for students to see their grades, class materials, and connect with classmates.
- The test aimed to assess Canvas's usability and identify barriers that might hinder students from using.
- Participants commented on IU Canvas website while performing six scenarios.
- This report presents the project's goals, our usability test scenario, and our findings and associated recommendations.

Test goals

- Assess the usability of the IU Canvas website.
- Identify strengths and opportunities for improvement.
- Collect test participants' feedback.
- Identify the barriers to use this website as a learning management system.
- Suggest ways in which Canvas developers can improve Canvas's ease of use and ultimately increase the users' satisfaction.

Test scenario

We presented participants with the following scenario to guide the test session:

Scenario 1 login account
You want to use IU canvas and you don't have any IU account now. You will use those information to finish the login process.
username:****
password:****

Scenario 2 layout
You are admitted to IU and you heard that IU Canvas has all the information for your upcoming resisted courses. You will visit the IU Canvas website. Since you can't register any courses at IU now, I will provide you a username and password for you to login. Take a moment to look at the page shown after you login. After you have familiarized yourself with this page, tell me: What do think about this page?

Scenario 3 search for courses
You are going to find all the courses you have enrolled in SPRING 2015 semester. Look at the search result and tell me:
What do you think of the result?
What do you like about it?
What do you dislike it?

Scenario 4 find classmates' contact information
You have met some new friends on the first day in the class Human Computer Interaction. You want to find more information about them. Try to find the contact information for the person named *** and ***.

Scenario 5 send email
Suppose you have a question about the Human Computer Interaction and you want to find the instructor's information and sent the instructor an email through canvas.

Scenario 6 download course materials
Download the handout named "Further_(suggested)_Readings_0416" for Human Computer Interaction course.

Data collection

Participants provided basic information about their background. During each task, we collected the following data directly into a Microsoft Excel spreadsheet:
- Participants' comments, navigating path through the web
- Observations
- Task time
- Participants' ease of use rating (1 = poor, 5 = excellent)

After completing the directed tasks, participants provided feedback by completing a post-test questionnaire.
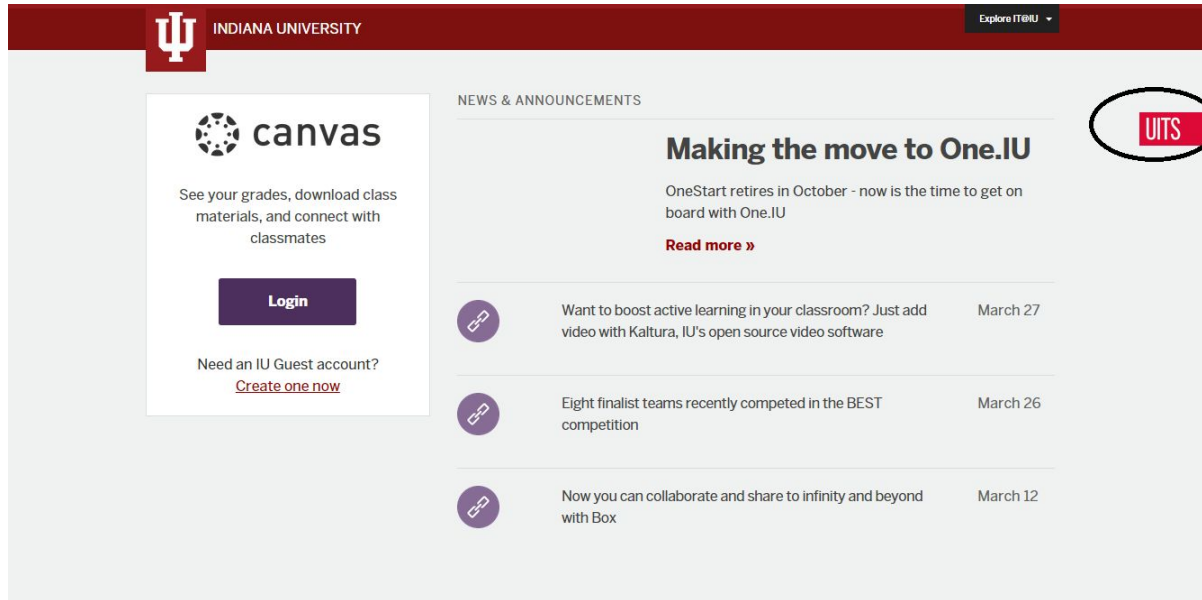
Data analysis

We reviewed all quantitative and qualitative task data.
We also reviewed participants' comments and observations notes to identify what might have hindered task completion.

Findings and recommendations

**1. Confused and stumped in the acronym words like "UITS".**

Uses, especially those who are not familiar with IU, may not know the exact meaning for those acronyms like "UITS".

Suggestions:
- Provide the full translation when the user hovers the cursor over the acronyms.
- Provide the full name for those words below the acronyms on the web page.

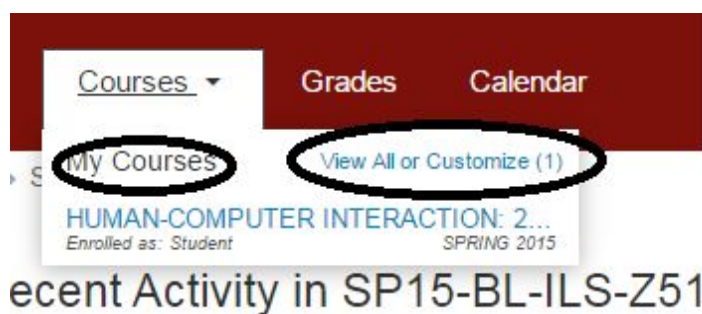**2. Not an obvious way to contact instructors and other students.**
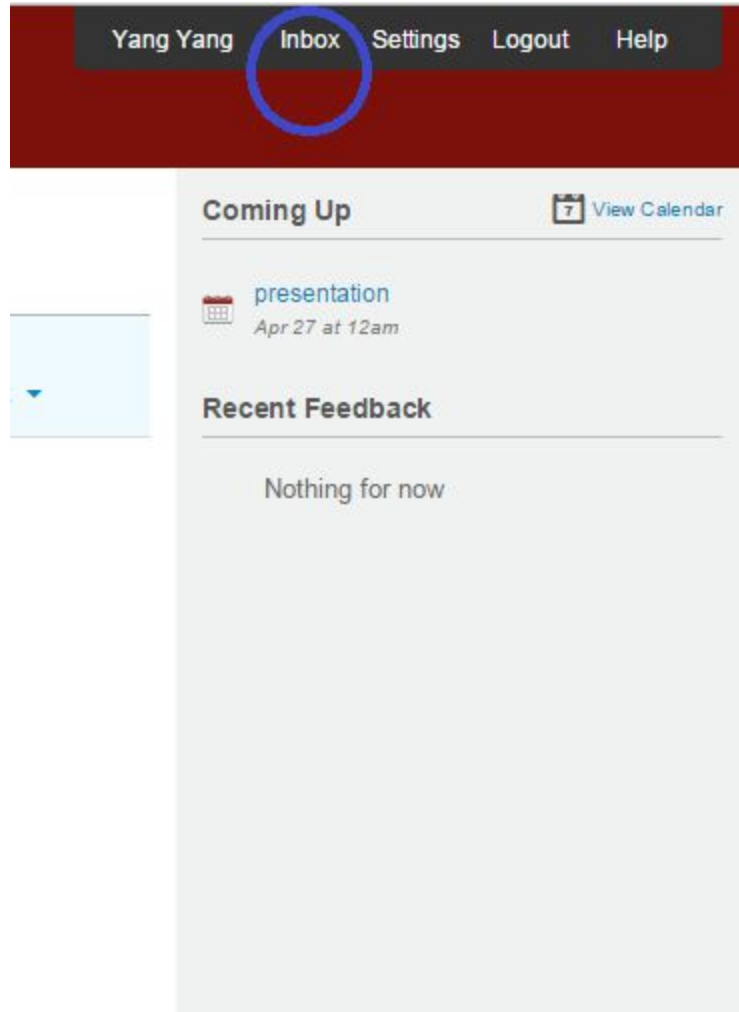
The "inbox" option is the on the right corner of the page with small font size and a dark grey background color. Users cannot find or locate this place easily and feel confuse to use.

Suggestions:
- Move the "inbox" option to the left sidebar.
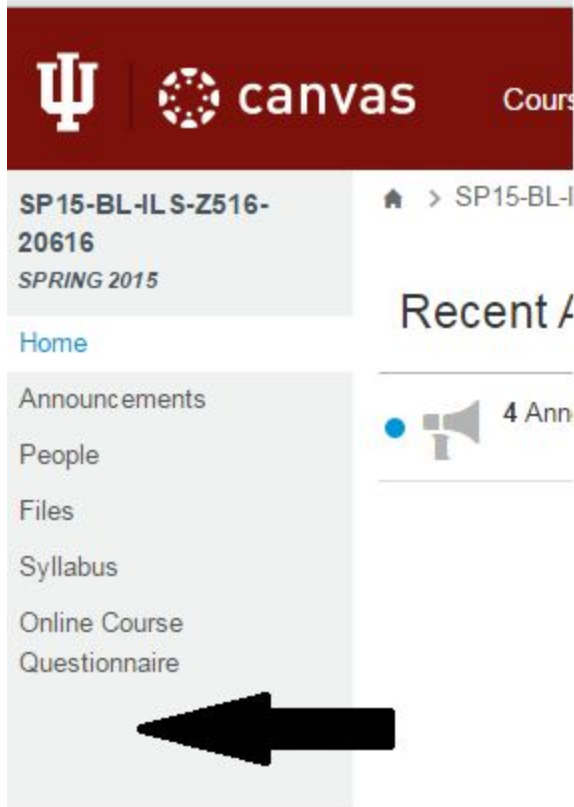
3. Confused in "My Courses" and "View All or Customize".

If the user want to find all the courses he/ she has enrolled, he/ she needs to click "View All or Customize". Users think "My Courses" are clickable, which is not. They also think "Courses" in the top menu will lead them to the course page. "View All or Customize" is on the right side of "My Courses" and is in a smaller font size and color. Users don't notice it at first glance.

Suggestions:
- Make "My Courses" clickable and link it to the courses page.
- Remove the "View All or Customize".
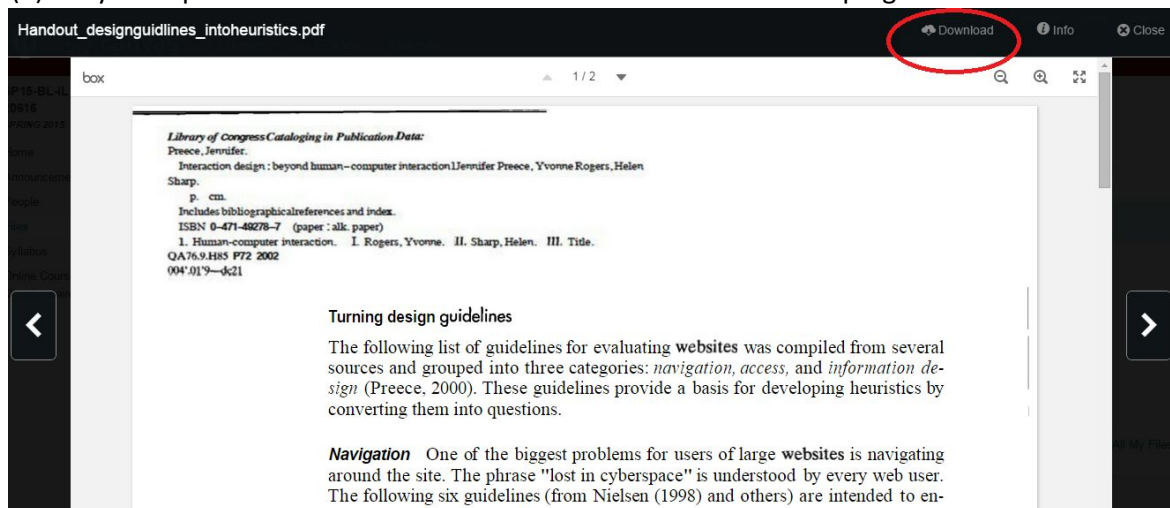
4. Unnoticeable download button

When the user wants to download a file or a folder, they have multiple ways to do it.
(1) They can open the file and click the "download" button on the top right corner.

(2) They can click the "download" icon on the Files page.
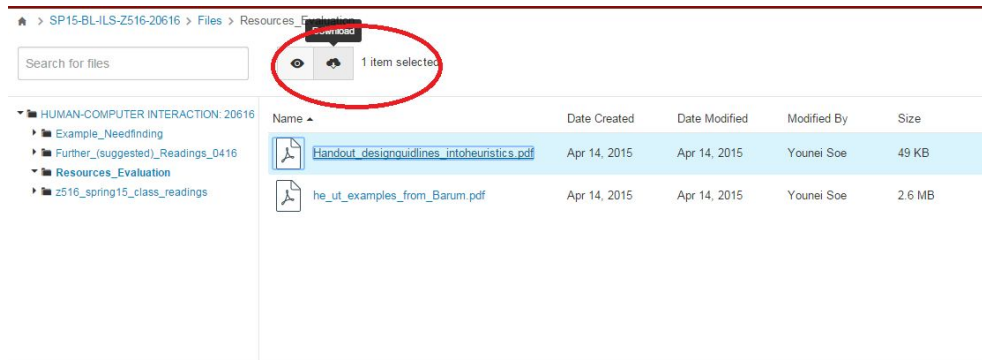
(3) They can click the icon ⚙▾ which is shown after they put the cursor on top of file or folder, and choose the download option.

The third way is not so obvious for users.

Suggestions:

- Make the icon ⚙▾ visible all the time on the page.

Heuristic Evaluations

2.1
Heuristics Evaluation of IU Canvas

By Aleesha H.
Date 22 April, 2015
Age 28
Gender F
Major Information Science
Experience 2-3 times in a day for almost 2 years.

1. Aesthetic and Minimalist Design
• Users should not be presented with information which is irrelevant or rarely needed.
• Relevant information should not have to compete with irrelevant units of information that diminish their visibility.
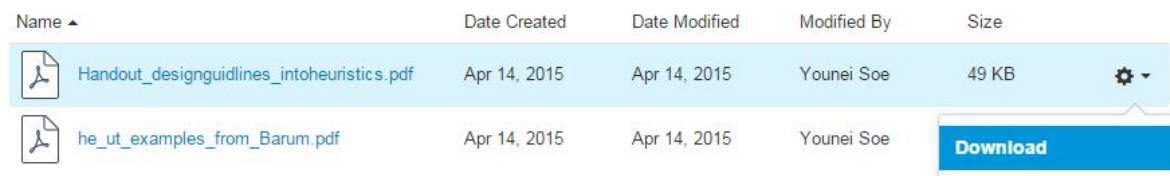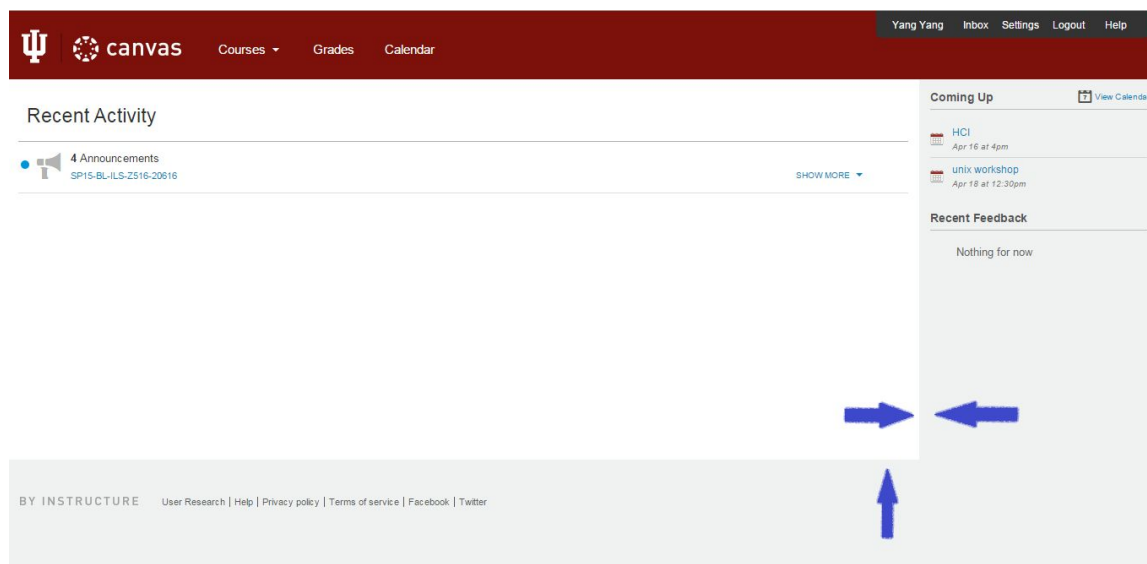
Evaluation
I have used Canvas for most of my classes at IU and think that almost all of the information presented is relevant to my classes. Some of the classes display items on the left pane that throw me off. I am a little confused in the beginning of each semester because every class has different options and I have to spend some time figuring out what each stands for.

2. Flexibility and Efficiency of Use
• Users should be able to tailor frequent actions to their needs.
• The system should cater to inexperienced users as well as experienced users.

Evaluation

Canvas displays all relevant information pertaining to deadlines and my calendar on home page that I really like. As an inexperienced user, I had to devote some time to learning various functionalities in Canvas. There wasn't a tour of the website to familiarize me with the various sections. So as an inexperienced user I had to spare some time just to learn about its functionalities. As an experienced user I have no problem navigating within Canvas.

3. Help and Documentation
• Help should be available to users if they have problems with the system.
• The help and documentation should be easy to find, focused on user tasks, easy to follow, and not be too large.

Evaluation

There is a 'Help' button located within Canvas but it actually isn't very helpful as it only provides me with ways to reach other people for help. That is not very helpful. There is a 'Canvas Guides' option but I don't visit it that frequently as it is filled with articles and information and the search engine is not that great at providing me with accurate results for my query. I almost always have to reach out to UITS to help me with my questions.

4. Recognition Rather than Recall
• Objects, action, and options should all be visible, limiting the user's memory load.
• 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.

Evaluation
Once you are an experienced user, it is fairly easy to navigate Canvas. I have no problem in figuring out what each section title or section represents. But it definitely takes time to get used to it. There are no instructions for use of system available except the 'Help' page.

5. Visibility of System Status
• Users should always know what is going on with the system.
• The system should provide the user with feedback within a reasonable amount of time.

Evaluation
The heading on each page provides me with information about what page I am in. The breadcrumbs structure at the top also helps me be informed about what part of the system I am interacting with. I also receive appropriate feedback within few seconds of committing an error and how to fix it.

6. Ability to Contact Users
• Users should be able to contact other Canvas users when necessary and appropriate.

Evaluation
There is a 'People' page on Canvas that lists all the students and instructor in that particular class. I can click on each persons name and get to their individual profile page. But unless a user chooses to display their method of contact or contact details on their profile page, there is no way to get in touch with them. There are no contact numbers or IU Email ids displayed. So there is no way to get in touch with other Canvas users until the users choose to display their information.

7. Searchability of Site Content
• Users should be able to easily search for site content throughout different areas of Canvas.
• Search results should be relative to search queries.

Evaluation

Although there is no 'Search bar' for entire Canvas website, a search box is located within various subsections of Canvas. For example I can search within Files, People, Announcements etc. Search seems to work fine for me most of the times. Sometimes it will display items not relevant to the search but most of the times it is pretty accurate. It would help if Canvas website had a search function for the entire website and not specific pages.

8. Efficient Loading Times

• Users should not have to wait long periods of time for Canvas to load.
• Downloading items from Canvas should be quick and easy to do.

Evaluation

Downloading items on Canvas never takes longer than it should. It is a breeze and I never seem to have any issue with it. It is very intuitive with a download button on the page that displays a file. It is pretty good.

9. Absence of Outdated Information

• Users should not find outdated information or outdated files on Canvas.

Evaluation

I do sometimes find outdated information on the website. For example after a submission is made it still displays on my right pane until I manually remove it. I also see outdated information on 'Announcements' page. Also I find outdated information about project groups that I was a part of, even after completion of projects.

10. Appealing Graphic Design

• Users should find the graphic design to be appealing and appropriate for the purpose of Canvas.
• The graphic design should not distract from information or make tasks harder to complete.

Evaluation

I think the design of Canvas is optimal. The layout is great with global navigation and secondary navigation. It makes tasks very easy for me. It is also very simplistic so it doesn't overwhelm me when I use the website. It is easy to find what I am looking for in the website. Although I wish there was a way to display instructor's name and contact information on the home page so I don't have to go deep within the 'People' page to locate their information.

2.2

Heuristic Evaluation of IU Canvas

By Shambhavi Dhargalkar
Date 4/20/2015
Age 22
Gender Female
Major Computer Science
Experience As a student and an AI

1. Aesthetic and Minimalist Design
• Users should not be presented with information which is irrelevant or rarely needed.
• Relevant information should not have to compete with irrelevant units of information that diminish their visibility.

Evaluation
I think the UI is really great. No irrelevant information pops up on the screen. The colors used are not too loud, so the look and feel is good too.

2. Flexibility and Efficiency of Use
• Users should be able to tailor frequent actions to their needs.
• The system should cater to inexperienced users as well as experienced users.

Evaluation
All my upcoming assignments are on the right side, so it gives me a quick access without actually having to go the course page and then to its assignment section. The calender feature lets me know when is my home-work due. It gives us the flexibility to create groups, add personal information. I don't really use the Edit Profile option. But, do create groups to collaborate with my team. I feel all kinds of users with different educational background would be able to use Canvas.

3. Help and Documentation
• Help should be available to users if they have problems with the system.
• The help and documentation should be easy to find, focused on user tasks, easy to follow, and not be too large.

Evaluation
Didn't need to use the 'Help' option till now. But I was able to find it immediately. So, I will be able to use it in the future if needed. I could find the document easily and the FAQ section should be really useful and easy to follow.

4. Recognition Rather than Recall
- Objects, action, and options should all be visible, limiting the user's memory load.
- 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.

Evaluation
Since things are not modified much, recognition is good. As an AI, I was able to enter grades correctly and the easily. One of the reasons, I did not encounter a problem was due to the consistent interface that Canvas provided.

5. Visibility of System Status
- Users should always know what is going on with the system.
- The system should provide the user with feedback within a reasonable amount of time.

Evaluation
I do get regular notifications regarding assignment uploads, messages, announcements, etc. Infact I also get some of them in my mail box which is kind of irritating at times. Though I know there must be a way to stop those notifications crowding my mail-box, I have not yet done that.

6. Ability to Contact Users
- Users should be able to contact other Canvas users when necessary and appropriate.

Evaluation
The chat functionality of Canvas is pretty good. We can communicate in an informal way with the whole class or certain groups that are formed as a part of the course project, discussions, etc.

7. Searchability of Site Content
- Users should be able to easily search for site content throughout different areas of Canvas.
- Search results should be relative to search queries.

Evaluation
I have used Canvas for 3 courses so far. 1 as an AI and 2 as a student. While my experience with using Canvas as an AI was good. It isn't that great for a particular course that I am enrolled in currently. One of the reasons could be that since it is a MOOC and many students are accessing, having different deadlines and assignment dates, it is confusing for me. No explicit search bar, but I usually do find my stuff around easily.

8. Efficient Loading Times
- Users should not have to wait long periods of time for Canvas to load.
- Downloading items from Canvas should be quick and easy to do.

Evaluation

I feel it's pretty much depended on the internet connectivity. If that is good, it loads pretty fast. If not, then it's slower.

9. Absence of Outdated Information

- Users should not find outdated information or outdated files on Canvas.

Evaluation

Since, I was an AI for the course in the previous semester, that information is still available on my Canvas. I think that is unnecessary, so something like that could be avoided.

10. Appealing Graphic Design
- Users should find the graphic design to be appealing and appropriate for the purpose of Canvas.
- The graphic design should not distract from information or make tasks harder to complete.

Evaluation

The graphics are fine and does not distract me or makes my tasks harder.