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P4 High Fidelity Prototype

Introduction

The CDM students at DePaul University construct numerous design projects throughout their academic career, yet they lack a platform that allows them to showcase these projects to their peers. For that reason, the students at the CDM are not able to connect with other students in sharing their creative projects. Through user interviews, we discovered how beneficial it would be for our target users to acquire a medium that allows them to share, browse, and explore projects not just for entertainment purposes, but also as an educational method, as it would be of high value for students to receive critiques and guidance on classes that would be of their interest. From the user interviews, we acquired five insights that helped formulate our design process:

- ❖ Getting advice and feedback from teachers and peers helped students greatly improve their projects
- ❖ Students felt more challenged when starting a design project
- ❖ Students would like to help other students by showing them their previous work from classes in case they get stuck
- ❖ Students would find it beneficial to see projects done in other classes to see if it would interest them before taking those courses
- ❖ Students are most proud of their portfolios and design projects because they put a lot of effort into them

From the insights, we developed six design principles that fueled our design and enabled us to tackle the issue of not having a platform for student creative project sharing:

- ❖ Allow students to access the design projects of other students
- ❖ Allow students to critique on students' submissions
- ❖ Provide one location for students to showcase their work that they will be able to then share on other sites

- ❖ Provide a way for students to search through categories of submissions
- ❖ Allow students to see past completed projects before they enroll in a class
- ❖ Provide a way for students to easily share their favorite projects

The six design principles shown above helped guide us as we created DePaul Media Share (DMS), a website that grants students the ability to share their design projects with other students. DMS addresses the issue DePaul CDM students have with regards to sharing and viewing projects of other students by incorporating key features that see to their needs and goals.

Users and Context

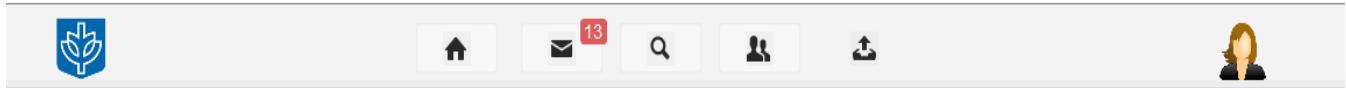
Our understanding of user needs began with our own needs. Our group consisted of four CDM students who agreed that having some sort of guidance in selecting a major or figuring out what to do on class projects would definitely be helpful to us. After conducting research involving observations and interviews, we were able to determine that a utility that gave users just that would greatly benefit the CDM student body. There are a lot of classes and majors that involve creative thinking, so it was our hope that we could design a platform in which students could showcase these creative projects to help others in CDM in their own work. The important user needs that we pinpointed were that CDM students wanted to be able to share their projects and receive feedback on them in order to improve on them and on future projects as well. They also found that inspiration was hard to come by for school projects, so making a website that could do both of these things would be greatly beneficial to these students.

Overview of Features

In order to give students what they wanted, we had to find the best possible way to do so. We wanted to focus our high-fidelity prototype on the fundamental basis that everything is easy to find and easy to use, general guidelines that are effective in most modern websites. The main user activities that we wanted to add involved uploading projects, receiving critique and feedback, and searching and

browsing projects and majors, each with social implementations (e.g. chat, follow, friend-ing functions, etc.) These addressed the problem of students struggling to determine what major to decide on, or students who needed guidance in a CDM class. It was our main goal to address these concerns. One of our main design features was the global navigation toolbar. We found we were able to make the site easier to use by implementing such a feature that showcased the main site elements that students wanted.

Global Navigation on DMS



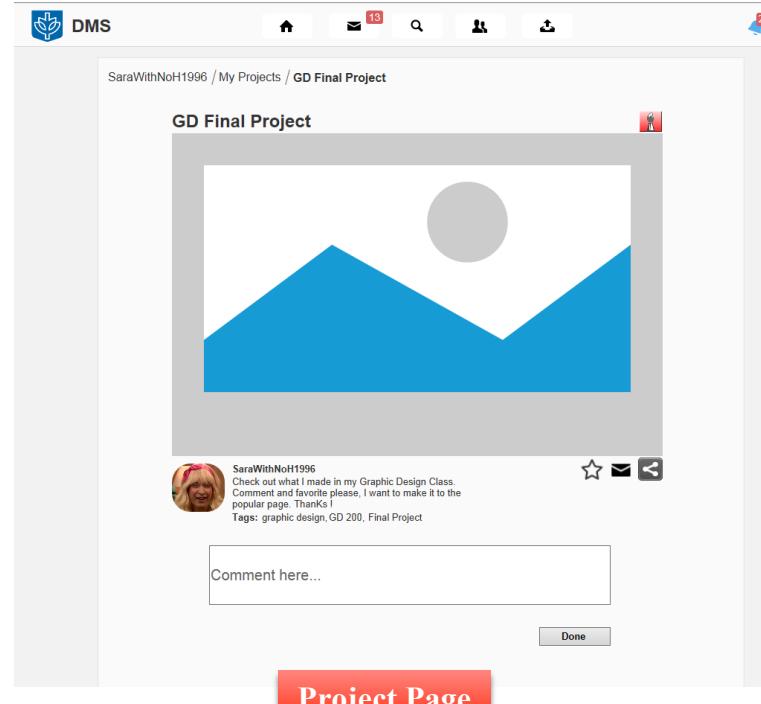
The purpose of this feature was to tie the main features together in one central area. This toolbar is on every page in the website, making it always easy to find and use. The icons from left to right are 1: Home page, 2: Message interface, 3: Search, Browse, 4: Friend Finder, and 5: Upload Projects. We tried to use icons that were generally known to most modern apps and websites such as Facebook, Twitter, and Tumblr.

Upload and Project Interface



We also wanted to design an easy-to-use upload interface that allowed students to share their class projects in a simple way. We did that by making it a modal panel so that the user does not need to navigate to a completely new page. We met several needs with these interfaces, one being of course, the desire for students to upload and share their class projects, and the second being receiving feedback. The social implementations for this

interface involved being able to add your own description of the project, and adding 'hashtags' to make their projects easy to find by others.



When the project was uploaded, users could offer their feedback immediately below in the comments section. There is also a message function for users to contact the uploader for any reason, whether to ask questions or simply get in touch in a more personal manner in order to ask about their project or offer critique. We believe these features will meet the user need of receiving feedback for their projects.

Another main feature that is all around the website is the personalized social aspect. Users can visit other users' profiles in order to contact them, view their previously uploaded projects, or to simply follow them to receive updates about their work. The homepage is also personalized in that it suggests people to follow and provides a newsfeed of projects and updates from one's followed users.

We finally wanted to find a way to address the desire of browsing majors and projects. We wanted to give students as many options as possible without overwhelming them, so we tried to design a tab interface utilizing various design patterns ranging from accordions to carousels. We thought a feature that was represented in this fashion would be valuable to users, since they could either look for something if they knew exactly what they were looking for, or they could simply browse for the purpose of discovering other majors or classes, or simply just to browse.

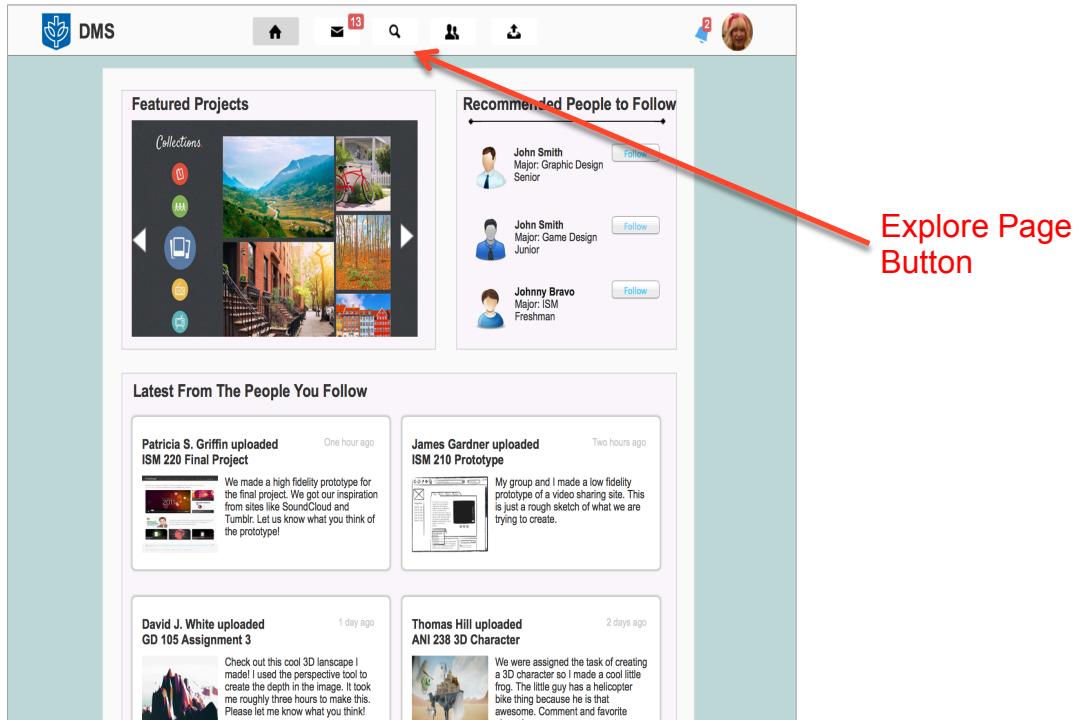
Prototype

To achieve our goal of creating a platform that allows CDM students to share, explore, and browse the design projects of other students just like them, we developed DePaul Media Share (DMS). DMS is a website that permits students enrolled in CDM courses to upload their projects and categorize them by major, course, or tags. Students can then browse through those categorizations or dissimilar ones by visiting the explore page. The explore page provides multiple ways for a search to be performed. For example, students can select preferred courses with an accordion menu, or input a specific search with a search bar that filters text as the student types in the search bar's text field. Similarly, students are able to leave feedback and critiques on projects, highlighting the social feature DMS supports. The feedback can be left as a comment or a direct message. It is upon the student to decide how they would like to communicate with others to leave their feedback.

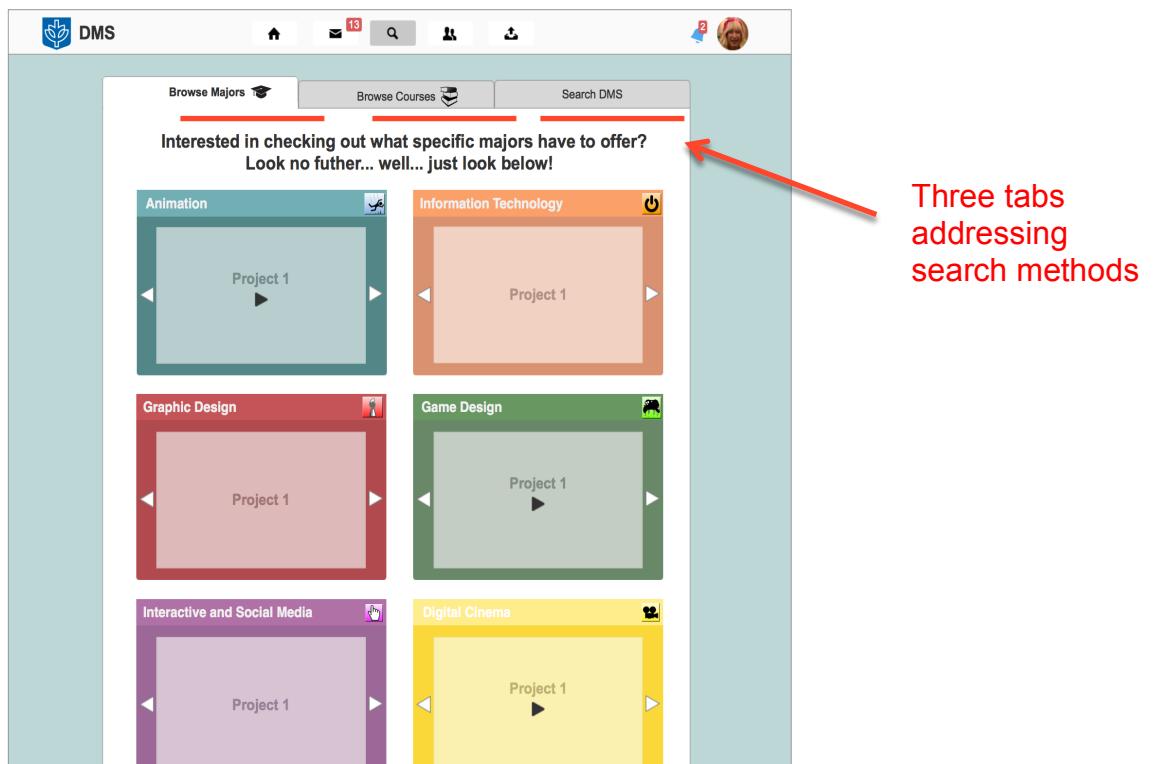
To demonstrate how DMS supports specific tasks, eight user stories were created to highlight these important features as shown below:

1. *"As a curious CDM student, I want to be able to browse through different categories of majors so that I can pick one that interests me."*

This user story demonstrates the need to browse through different categories of majors available in the explore page. For a student to be able to conduct this search, they must first visit the explore page which can be achieved by pressing the magnifying glass symbol in the global navigation bar at the top of the website.

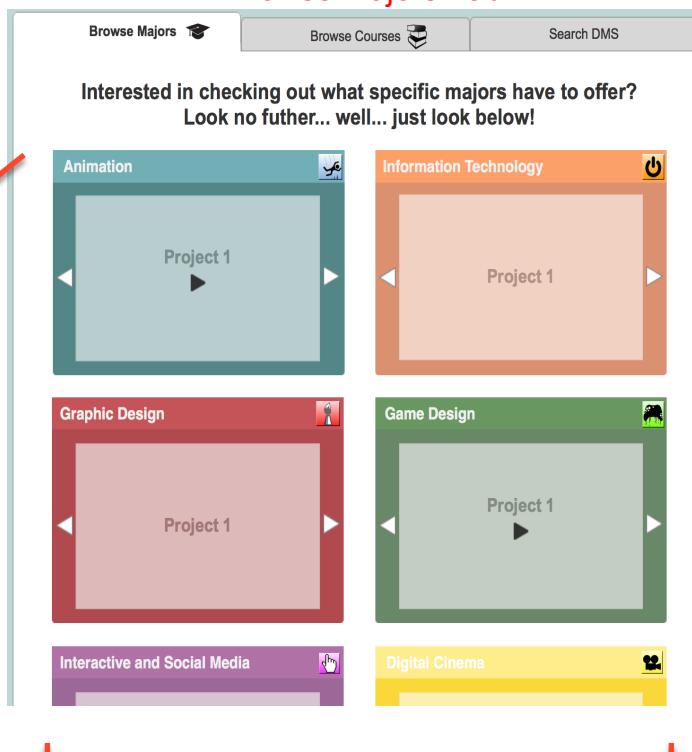


Once the student has reached the explore page, they will find three tabs that each address a specific search method: browse majors, browse courses, and search DMS.



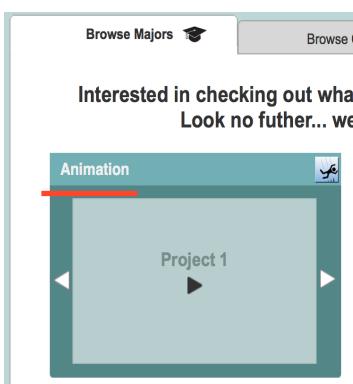
To browse through categories of majors, the student would make use of just the first tab labeled “Browse Majors” in order to just browse through majors. The other two tabs suggest searching through courses and a search bar for precise results. When the student first clicks on the explore button to take them to the explore page, the “Browse Majors” tab is the first one opened so no other extra clicking is needed. Here, they can look through overall projects made from students who are majoring in that specific area of study. They can take things a step further by pressing the title heading of the major to be taken to the major’s homepage for more information and projects. We demonstrated the Animation Homepage in this example.

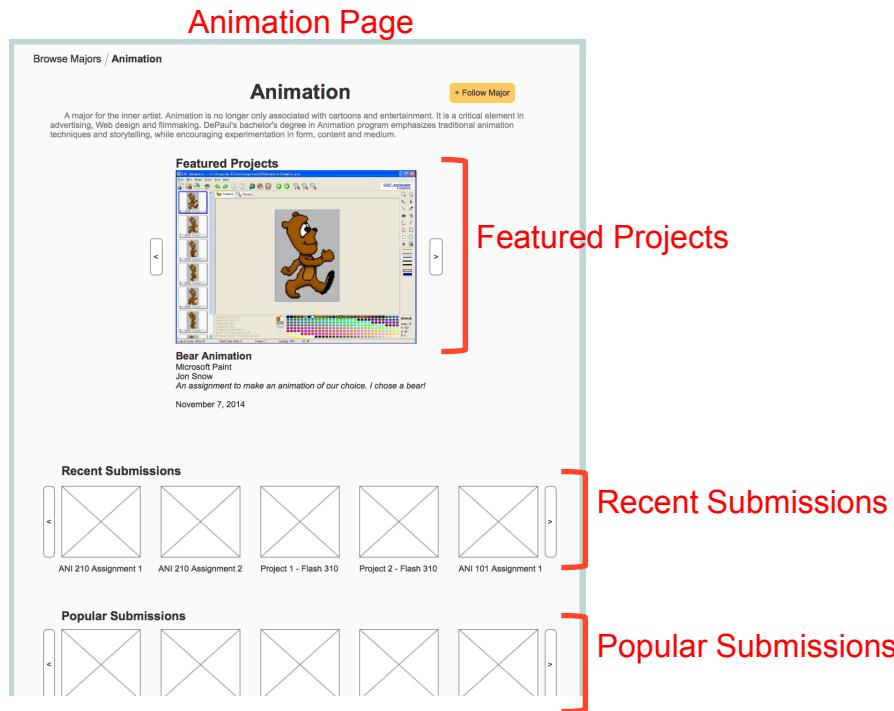
Browse Majors Tab



A thumbnail grid of majors each with a project carousel slideshow of projects.

Press “Animation” to be taken to its homepage where you will find more projects and information.



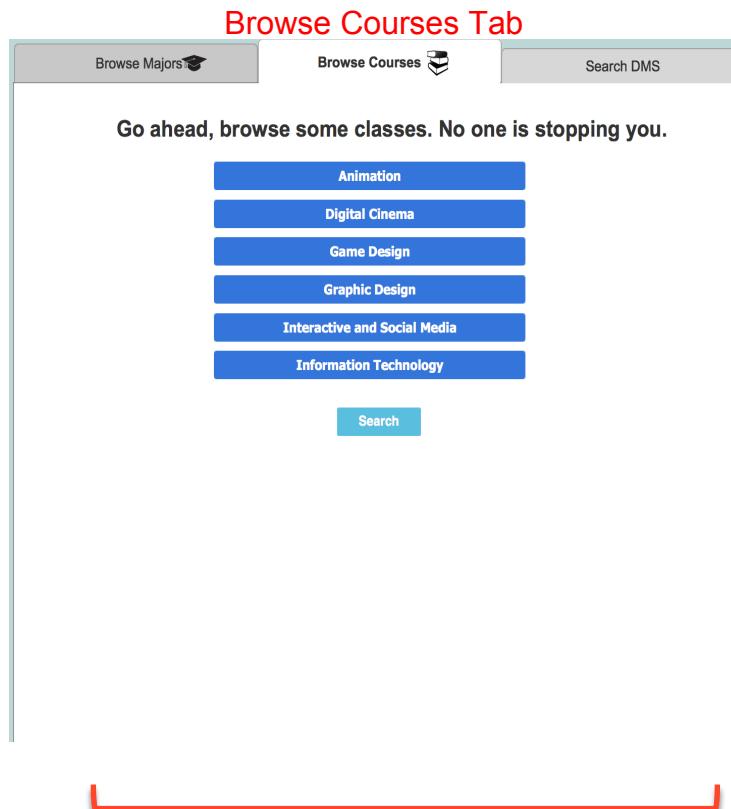


At the Animation page, the student is able to view recent submissions, popular posts, and featured projects. If the student wants to view most posts than are viewable in the carousels, they can simply click on the heading of the section such as "Recent Submissions" and view a wide range of recent animation projects that can be filtered and sorted through.

2. *"As an animation CDM student, I would like to see the work others performed in specific courses so that I can be inspired to begin my project."*

The user story above features the search by course task that can be performed in the second tab of the explore page labeled "browse courses". As stated in the previous user story, when the student first load the explore page the first tab presented to the user is the "Browse Majors" so they must click on the "Browse Courses" tab to access the search method. Upon opening the tab, the student will be presented an accordion menu that has majors listed in alphabetical order. The student must select a specific major so that a submenu can open listing all the courses that are available in that field of study. The courses are organized from level 100 all the way up to level 300 in order with a checkbox near each number. The student is able to select multiple courses if they wish, and then all they have to do to view projects made in those courses is press the "search" button at the end of the

accordion menu. Once the button is pressed, a search results page will load up displaying the selected course projects. Here, the student is able to filter and sort through the results based on the design tools used, date uploaded, and popularity. We demonstrated this task using ANI 101 and ANI 300 as the selected courses.



An accordion menu of majors that once opened displays a wide range of courses within each major to select from.

Browse Courses Tab

Go ahead, browse some classes. No one is stopping you.

Animation

- ANI 101 □
- ANI 201 □
- ANI 220 □
- ANI 230 □
- ANI 231 □
- ANI 240 □
- ANI 260 □
- ANI 300 □
- ANI 315 □
- ANI 321 □
- ANI 333 □
- ANI 336 □
- ANI 338 □
- ANI 340 □
- ANI 352 □
- ANI 360 □
- ANI 394 □

Digital Cinema
Game Design

Search

Browse Courses Tab

Go ahead, browse some classes. No one is stopping you.

Animation

- ANI 101
- ANI 300
- ANI 201 □
- ANI 220 □
- ANI 230 □
- ANI 231 □
- ANI 240 □
- ANI 260 □
- ANI 315 □
- ANI 321 □
- ANI 333 □
- ANI 336 □
- ANI 338 □
- ANI 340 □
- ANI 352 □
- ANI 360 □
- ANI 394 □

Digital Cinema
Game Design

Search

Checked checkboxes move to the top of the list and stick there so student is better able to see what they selected.

ANI 101 +ANI 300 have been selected

Click to view projects

Search results for ANI 101 and ANI 300

Showing results for: ANI 101 + 300

Sort By Filter Design Tools

	ANI 300 FINAL After Effects By: Tony Smith Final project November 20, 2014		ANI 101 FINAL Photoshop, Illustrator, After Effects By: Kyle Lee Final project November 19, 2014
	ANI 101 PROJECT Flash, Photoshop By: Dennis James Midterm Project October 17, 2014		ANI 300 FINAL After Effects, Illustrator September 23, 2014
	ANI 300 PROJECT After Effects, Illustrator By: James Franco Cartoon Animation project September 22, 2014		ANI 101 Project After Effects, Photoshop By: Amy Kal Final project September 18, 2014
	ANI 101 PROJECT After Effects, Illustration By: Arthur Pal Group project September 18, 2014		ANI 300 Project After Effects, Illustrator, Photoshop By: Hector Tod Midterm project September 17, 2014

3. "As a CDM student, I want to be able to follow other peers so that I can keep up to date with their work"

This user story is representative of the social networking aspect of the prototype. People want to interact with others, and we wanted to find a way to link people together. We wanted users to be able to receive project updates from other students who may be creating work that is particularly inspiring. This concept of "following" also applies to majors; students can follow majors to receive personalized updates to features projects. Upon entering the homepage, users will be suggested who to follow, and with a simple click of a button, they can receive updates based on what projects they upload to DMS. For instance, when a followed user posts something, the followers will receive updates in this place on the homepage:

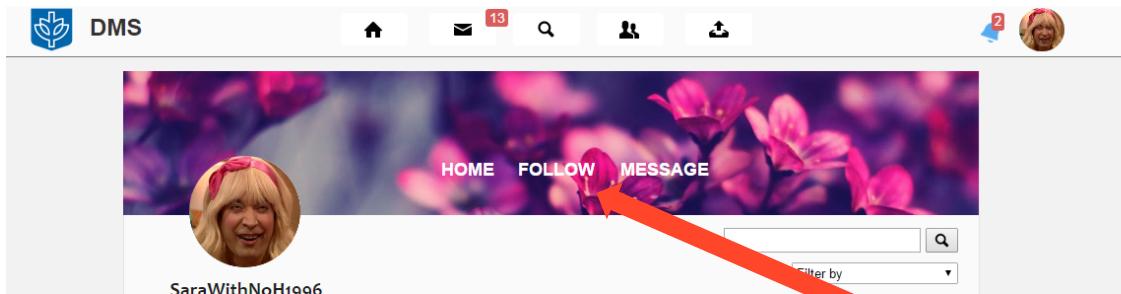
The screenshot shows the DMS homepage with the following sections:

- Featured Projects:** A grid of images representing different projects or collections.
- Recommended People to Follow:** A list of three users with "Follow" buttons:
 - John Smith (Major: Graphic Design, Senior)
 - John Smith (Major: Game Design, Junior)
 - Johnny Bravo (Major: ISM Freshman)
- Latest From The People You Follow:** A newsfeed section with two items:
 - Patricia S. Griffin uploaded ISM 220 Final Project (One hour ago)
 - James Gardner uploaded ISM 210 Prototype (Two hours ago)

Red annotations highlight the "Recommended People to Follow" section and the "Latest From The People You Follow" newsfeed. Red arrows point from the text labels to these specific areas.

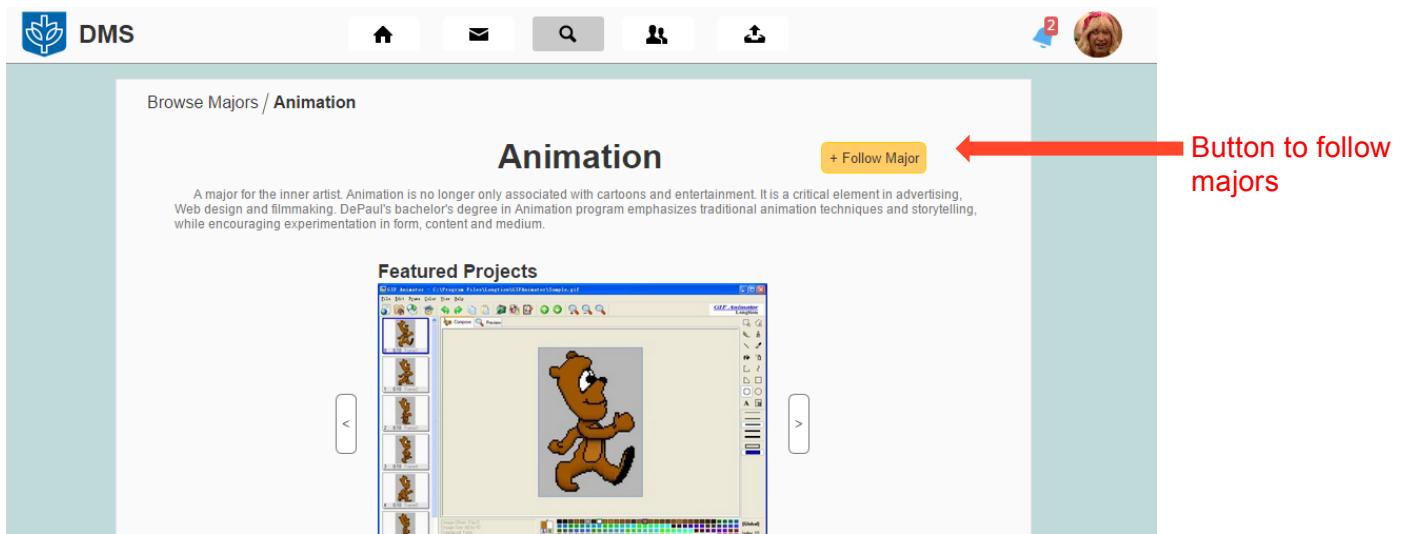
Since users will be able to follow classes, majors, and people, their news feed on the homepage is completely personalized. We wanted the follow button to be easily locatable on pages that users may be interested in, so they are often located somewhere near the top of the page, where users can simply find the button, and then click on it in order to follow the desired person, course, or major.

The follow button can be found on user profiles (as shown below):



Button to follow users

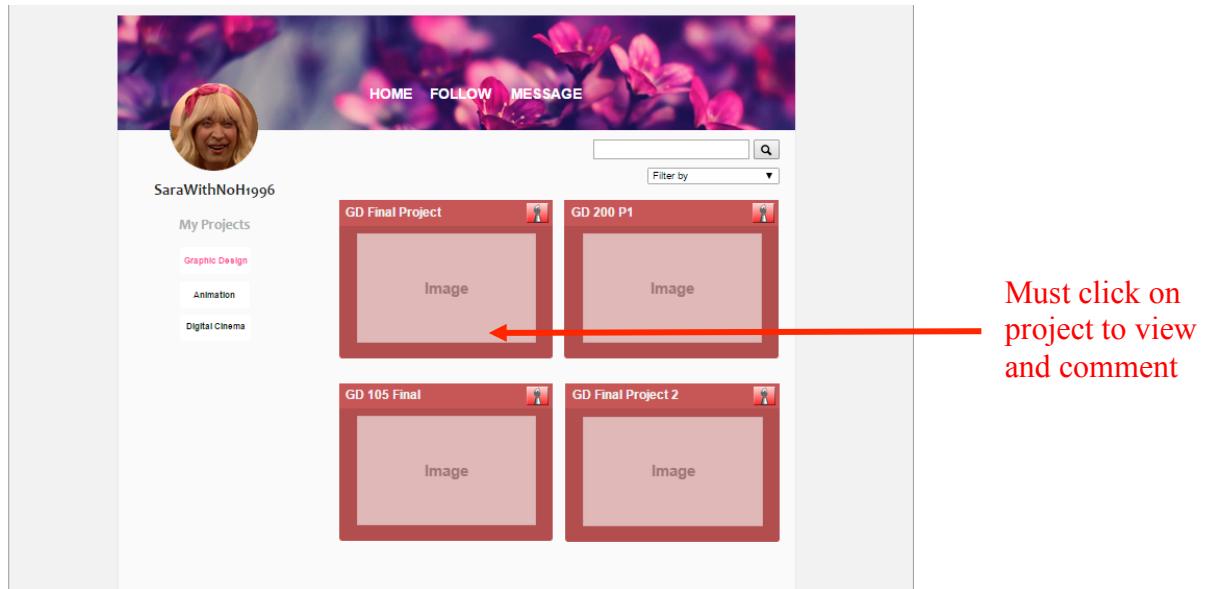
Or on the major's page as shown on the Animation page:



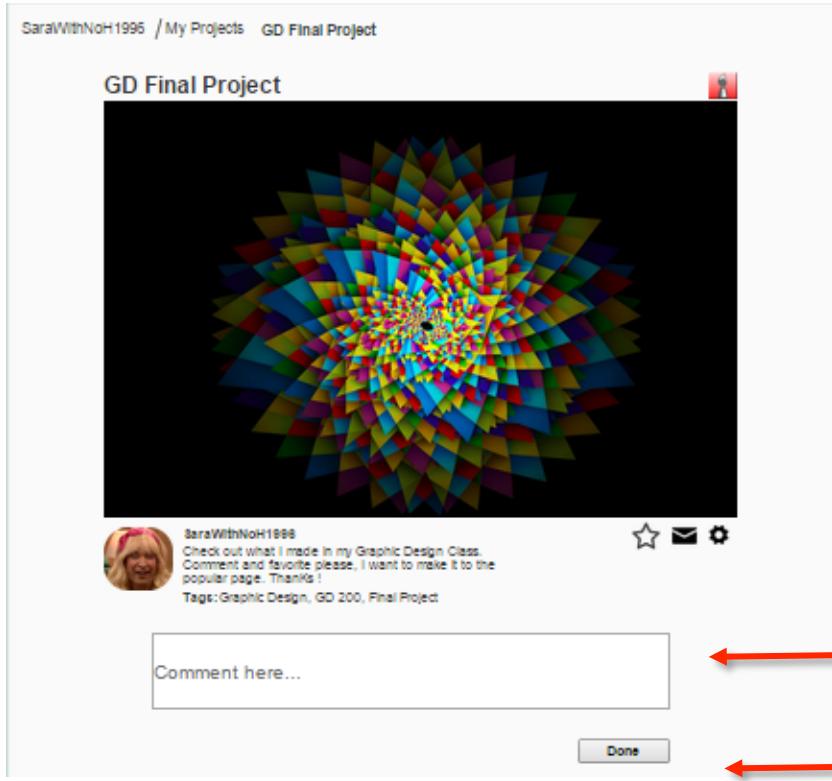
Button to follow
majors

4. *"As a senior CDM student, I want to receive critiques on projects I intend to add to my portfolio so that I can perfect those pieces and ultimately impress companies and clients."*

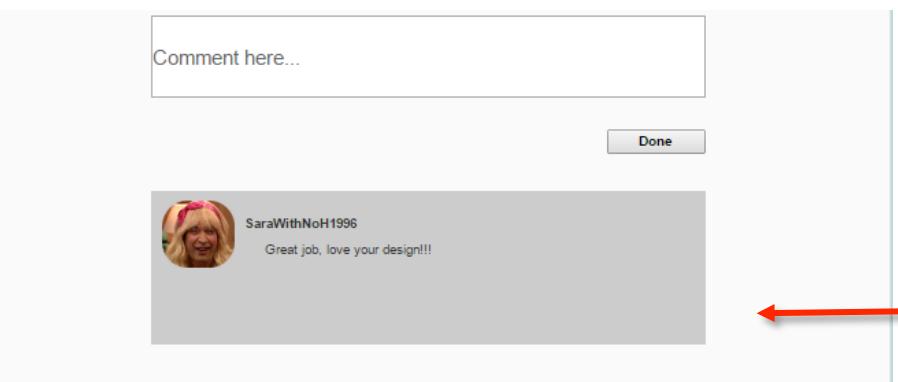
We discovered that students benefit tremendously from feedback, so we made sure to incorporate a social aspect to our site through features like direct messaging and commenting. For a student to make a comment on a peer's project, they must first click on the project they want to view to comment. Below, we have shown a student visiting a student's profile to select a project from there.



After the student selects the project they want to view, they will be taken to a page that shows a larger view of the project with a comment section below the project. The student leaving feedback will have to write their comment in the comment box and then select the "done" button to submit.

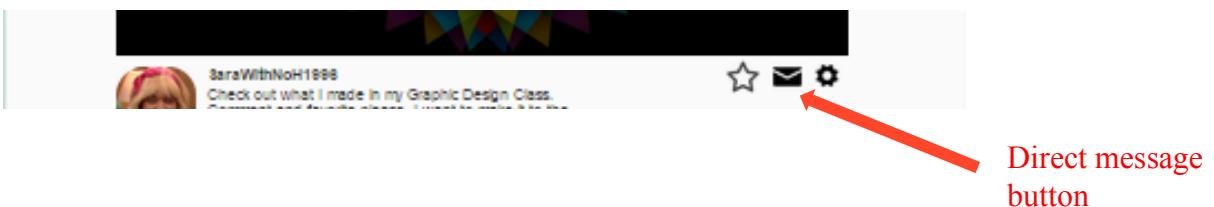


The screenshot shows a digital platform interface. At the top, it says "SaraWithNoH1996 / My Projects GD Final Project". Below this is the title "GD Final Project". The main image is a colorful, geometric design composed of many small triangles radiating from a central point. To the right of the image are three icons: a star, an envelope, and a gear. Below the image, there is a user profile picture of a person with blonde hair and a pink headband, followed by the name "SaraWithNoH1996". A message reads: "Check out what I made in my Graphic Design Class. Comment and favorite please, I want to make it to the popular page. Thanks !". Below this message are the tags "Graphic Design, GD 200, Final Project". Below the profile picture is a text input field with the placeholder "Comment here...". To the right of the input field is a "Done" button. Red arrows point from the text "Text area to make comment" to the input field and from the text "Done button to post comment" to the "Done" button.



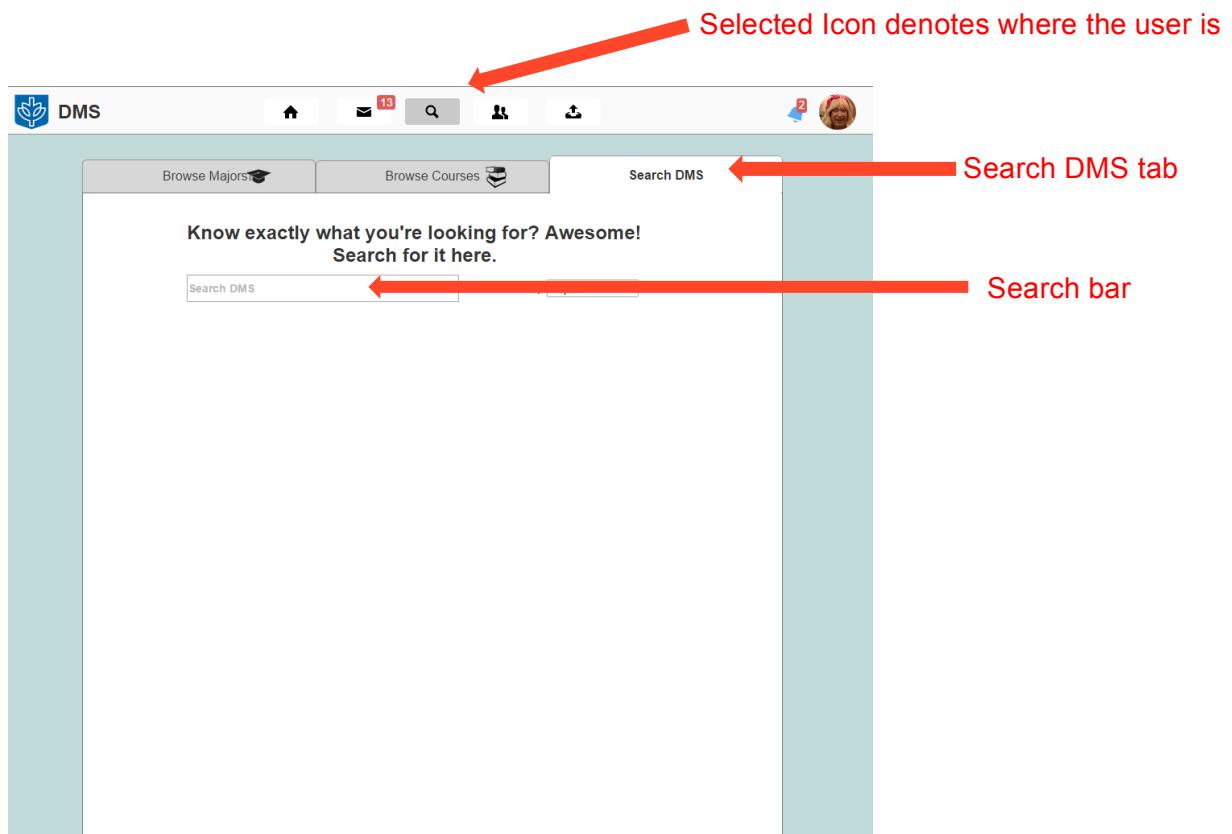
The screenshot shows the same digital platform interface after a comment has been posted. The comment area now displays a message from "SaraWithNoH1996" that says "Great job, love your design!!!". Red arrows point from the text "Final view of submitted comment." to the posted message.

Students also have the option of direct messaging a student as opposed to leaving them a comment that can be seen by others. To send a direct message the student must select the mail icon that is between the star button and cog icon below the project.



5. "As a CDM student who is in a rush, I would like to be able to search for a specific project."

This story expresses the need that students have when wanting to search for specific project based for various reasons such as help or entertainment. While it may be difficult to identify *exactly* what they are looking for, we wanted to figure out a way to give them some guidance. So we implemented a search bar function where students can search for specific projects in the explore page. It is the final third tab labeled "Search DMS" that is presented on that page:



The search bar uses an auto-complete design pattern in order to give instant project feedback to users as they are entering their search, to assure them that their query is recognized (or not recognized) by the database. The following feature is demonstrated used ANI 210 as the search term:

The screenshot shows the DMS search interface with the search bar containing "ANI". A red arrow points to the "Sort by: Popular" dropdown menu. Below the search bar, the text "Search results" is displayed. Four project entries are listed:

- ANI 310 Final**
After Effects Animation
Ashley Williams
An animation about a dude who does things and stuff
November 17, 2014
- ANI 240 Project 2**
Flash Animation
Kayden Alecko
The assignment was to tell a story in 30 seconds or less
November 15, 2014
- ANI 210 Final**
After Effects Animation
Gary Vakarian
An animation about a dude who does things and stuff
November 14, 2014
- ANI 210 Final**
After Effects Animation
Jon Shepard
An animation about a dude who does things and stuff
November 14, 2014

Even when a search is incomplete, any recognized text entries will yield immediate results.

The screenshot shows the DMS search interface with the search bar containing "ANI 210". A red arrow points to the "Sort by: Popular" dropdown menu. Below the search bar, the text "Search results" is displayed. Three project entries are listed:

- ANI 210 Final**
After Effects Animation
Marty Soto
My final for my ANI 210 class. Got an A on it so I mean the quality speaks for itself!
November 16, 2014
- ANI 210 Assignment 2**
Flash Animation
Miranda Lawson
hi mom
November 16, 2014
- My ANI 210 Final**
After Effects Animation
Martin Sheen
Rate comment and follow!!!!!!!
November 14, 2014

Completed search query

Filter drop-down

Upon receiving their search results, the user can filter the results further by selecting criteria that pertains to what exactly they are looking for. For instance, they can view projects made recently or ones that are more popular, to get an idea of what's new or what has been highly rated by the DMS community.

6. "As CDM student, I want to stay updated with what is going on in my network of followers and people I follow."

In order for students to stay in touch with what is going on in their network, we incorporated a news feed where students can receive updates from their friends. The updates will include information regarding new projects submitted, comments left by the students, and also new people that the people in their network have followed. To view this newsfeed, all the student has to do is visit their homepage. The homepage has a section tilted "Latest From The People You Follow" which lists all of the recent activity the people you follow have participated in. To increase the news items a student sees, all they have to do is follow more people. Luckily, the homepage also has a recommendations section that has recommended people the student would be interested in following.

The screenshot shows the DMS homepage with the following sections:

- Featured Projects:** A grid of thumbnail images representing various projects.
- Recommended People to Follow:** A list of three recommended users with "Follow" buttons:
 - John Smith (Major: Graphic Design, Senior)
 - John Smith (Major: Game Design, Junior)
 - Johnny Bravo (Major: ISM, Freshman)
- Latest From The People You Follow:** A newsfeed displaying recent posts from followed users:
 - Patricia S. Griffin:** Uploaded ISM 220 Final Project (One hour ago). Description: "We made a high fidelity prototype for the final project. We got our inspiration from sites like SoundCloud and Tumblr. Let us know what you think of the prototype!"
 - James Gardner:** Uploaded ISM 210 Prototype (Two hours ago). Description: "My group and I made a low fidelity prototype of a video sharing site. This is just a rough sketch of what we are trying to create."
 - David J. White:** Uploaded GD 105 Assignment 3 (1 day ago). Description: "Check out this cool 3D landscape I made! I used the perspective tool to create the depth in the image. It took me roughly three hours to make this. Please let me know what you think!"
 - Thomas Hill:** Uploaded ANI 238 3D Character (2 days ago). Description: "We were assigned the task of creating a 3D character so I made a cool little frog. The little guy has a killer bike though because it's that awesome. Comment and favorite please!"
 - Craig Caines:** commented on Patricia S. Griffin's ISM 220 Final Project (2 days ago). Description: "The project took me about four hours to make. I adjusted the color and added in sound effects as well."
 - Judith Buckley:** started following Cynthia J. Rice and favorited William Brown's IT 238 Interactive Website (2 days ago).
 - Patricia S. Griffin:** uploaded ISM 220 Final Project (2 days ago). Description: "This is the final high fidelity prototype my group and I came up with. Let us know what you think!"

Annotations in red text and arrows highlight specific features:

- A red arrow points to the "Recommended People to Follow" section with the text: "Recommended people to follow".
- A red arrow points to the "Latest From The People You Follow" section with the text: "Students can get a live update of when the post or comment was made relative to real time".
- A red bracket on the left side groups the "Featured Projects" and "Latest From The People You Follow" sections, with the text: "Newsfeed section displaying a thumbnail of the project along with a description" pointing to the bracket.

7. "As a busy CDM student, I would like to have the ability to see notifications whenever I get feedback so that I can view it quickly."

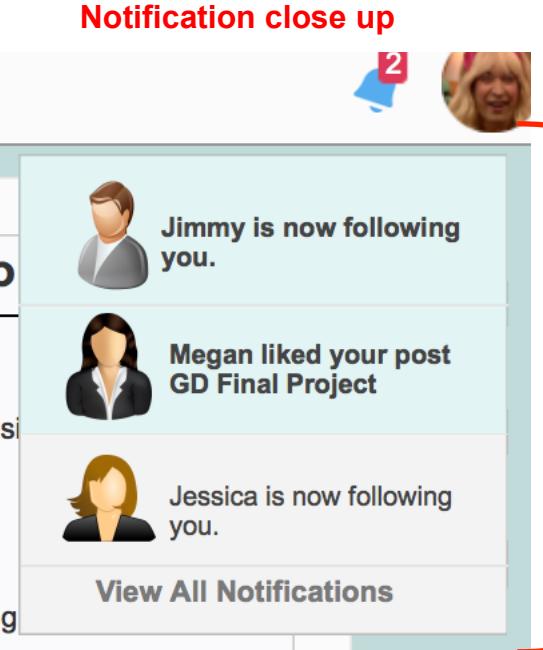
This user story ties in with the social aspect of our site because it discusses the need of wanting to be able stay in touch with current updates regarding your friends. These features are important because they keep the user aware of recent news and activities taking place in their network. We incorporated the ability to get notifications into our prototype and made it similar to the notification process of twitter where you are given a blue bell icon that updates with alerts and displays the number of current news for you to view. This blue icon is in far right of the global navigation bar so it can be accessed at all times. Once you hover over this icon you can see who followed you, or messaged you, or left you a comment. Once you click on an notification it will specifically take you to that particular page, for example if you received a new message it will directly take you to the messages section in order for you to reply or delete those messages.

The screenshot shows the DMS prototype's homepage. At the top is a global navigation bar with various icons. To the right of the center is a blue bell icon with a white number '2' inside, indicating two notifications. A red arrow points upwards from the explanatory text to this icon.

The screenshot shows the DMS prototype's homepage with a notifications dropdown menu open. The menu lists three notifications: 'Jimmy is now following you.', 'Megan liked your post GD Final Project', and 'Jessie is now following you.' Below the notifications is a 'View All Notifications' button. A red arrow points upwards from the explanatory text to this button.

Notifications symbol alerting you that you are two new notification items.

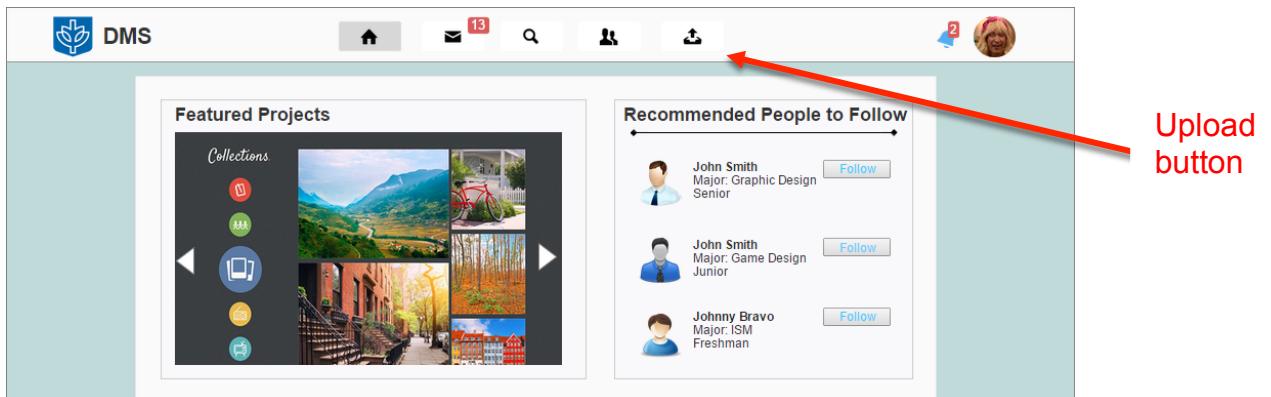
Covering over the blue bell icon displays all of your recent notifications.



New notification items have a blue tint to them so the user is able to quickly identify the new items.

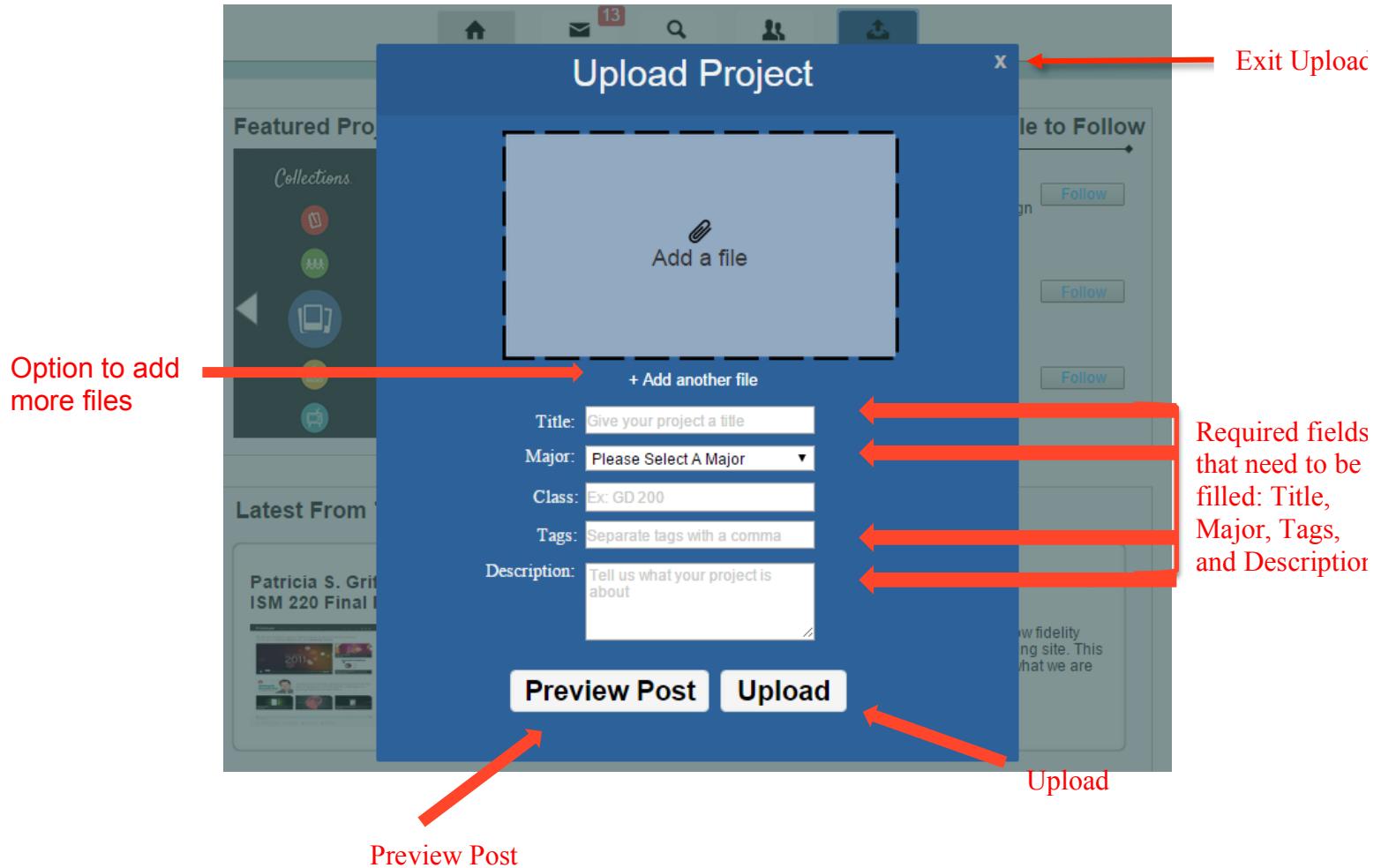
8. "As a CDM student, I want to be able to easily share design projects with my peers so that I can inspire others and showcase my work."

For a student to be able to share their posts with their peers/followers they must first upload their project. They can find upload button located at the top of the webpage with the universal symbol of an arrow going into a box known for its upload connotation.

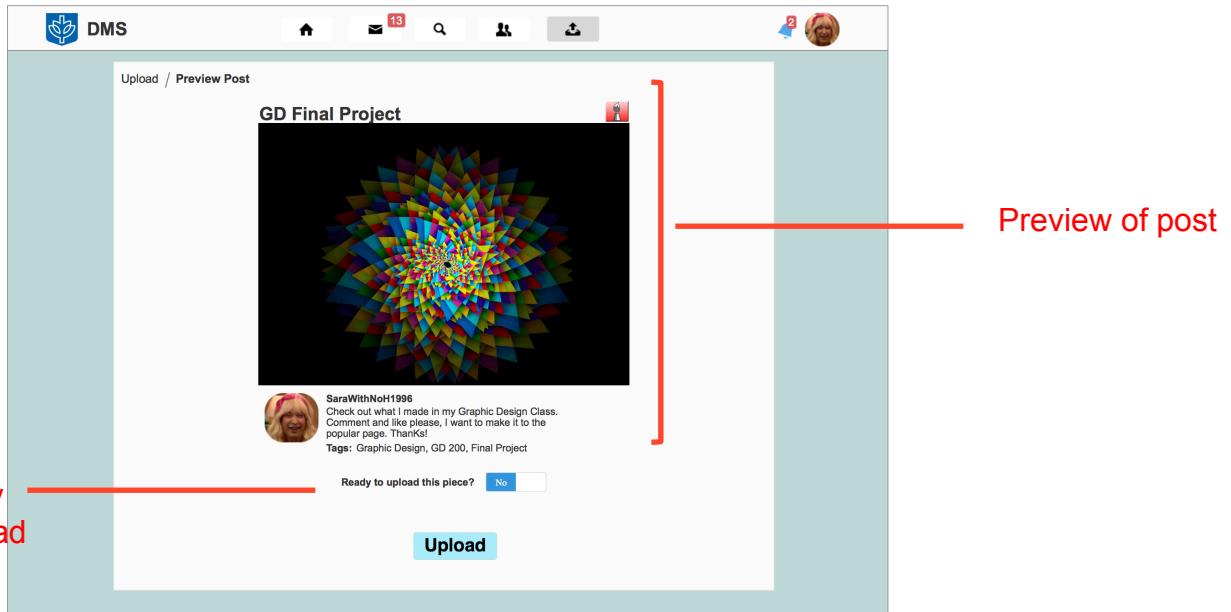


Once the upload button is clicked, an upload modal window will show up where most of the uploading process will occur. The student will have the option to add one file or multiple files depending on the extent of their project. When the file is attached, the student must then fill out the fields below the attached file for categorization purposes and also to help other students find the project based on the inputs the student has added. Once

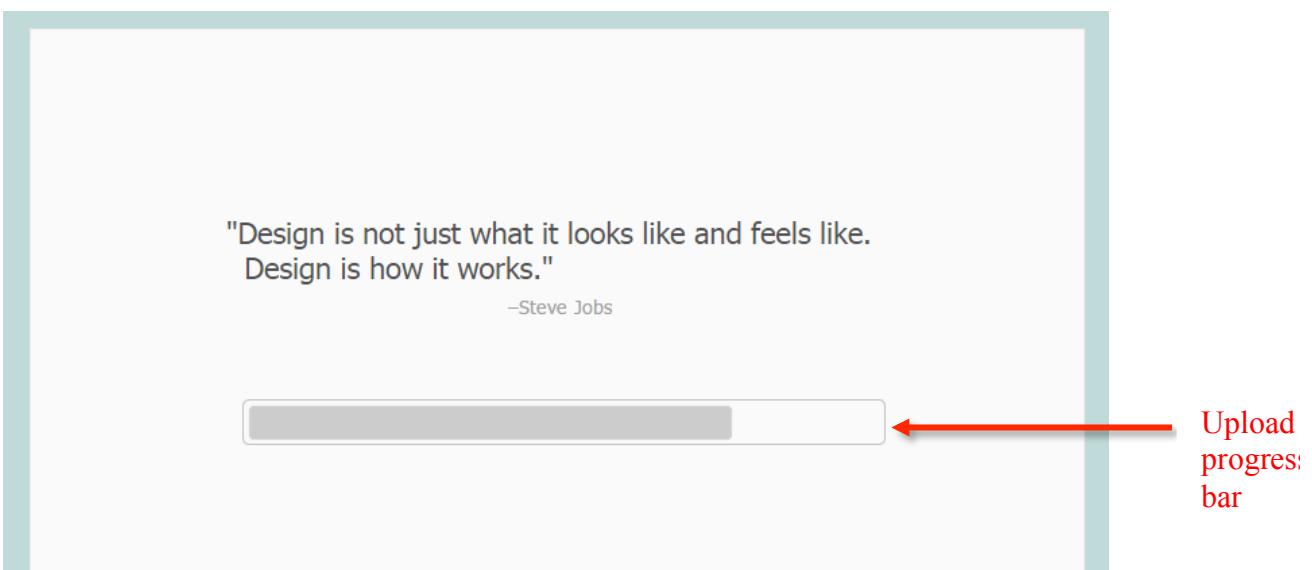
the student has two options before uploading, they can either preview their post or just simply upload the project so it can be made into a post without revision.



If the student chooses to preview their upload they will be taken to a page that mimics the final post except it will be not be public. When the student is ready to upload they must pull the switch from "No" to "Yes" where it asks the student if they are ready to upload. After, they can proceed to press the "Upload" button.

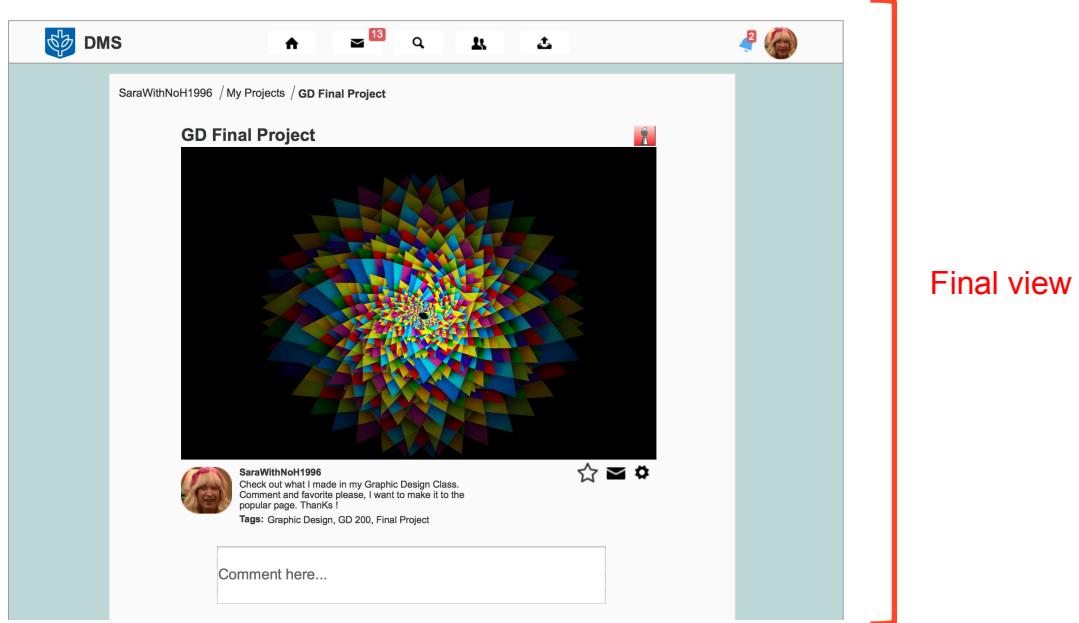


After the upload button is clicked, the student will be taken to the upload progress bar page. The upload progress bar lets users know that their post is uploading.



Once the project has been uploaded, the public post page will be loaded up where it will show a finalized view of the post. Three new features will be available under the project such as the star button for favoriting the project, a mail icon for direct messaging the student, and also a cog button for the uploader to edit the post if needed. There also will be a comment

section where students can leave their feedback and general thoughts on the project.



Evaluation

Prior to beginning the user tests on our prototype, we first decided upon two specific user stories to guide the process. Since uploading projects is a big component of our site, we selected the following user story to make a task scenario of:

"As a CDM student, I want to be able to easily share design projects with my peers so that I can inspire others and showcase my work."

The task scenario derived from that user story was as follows:

"Imagine you are Graphic Design student who is very proud of how your final project turned out. You want to post the project to DMS. Can you show me how you would go about uploading the project to the site?"

This first test began with briefing the user (in this case, Kyle's brother, Eric) of the task scenario. We wanted him to log in, navigate to the upload feature, and then enter in criteria to upload his project. Upon him logging in, he found the upload button within seconds at the top of the screen on the global navigation bar. Once the modal panel opened, he asked what sort of information he should enter. It did not occur to us until that moment that we did not make it clear whether or not every field was required for the upload to work. We told him to enter whatever bits of information he wanted since there was no right or wrong way to upload a project. We wanted to make it clear to him that we were conducting this test to observe, rather than tell him what to do, as we wanted to test the usability of the prototype as a whole. After this user test we implemented a feedback message that told the

user what fields to complete when they tried to submit an incomplete query. Once Eric had filled out the upload form, he asked us whether or not he would be able to view a preview of the post before actually uploading it to get a sense of how the post would look like. This led us to add in a “preview post” button to the upload modal panel, allowing students to preview their post before it goes live to the public. Since we didn’t have that feature put in when Eric had done the user test, he simply pressed the “post” button and was then taken to the post. Once Eric had reached the post page he successfully had completed the task of uploading a project to the site.

The post page ties in with the next user story well, which is as follows:

“As an animation CDM student, I would like to see the work others performed in specific courses so that I can be inspired to begin my project.”

A task scenario was derived from this user story:

“Imagine you are an animation student with a bit of time between classes. You log onto DMS and decide that you want to look at ANI 101 and ANI 300 class projects. Can you show me how you would go about finding those projects?”

To conduct the user test for this task scenario, we found a random student in DePaul’s first floor lab. We briefed them on what we wanted to test and that it would not take long, so they agreed to help us. We started them off on the login screen, where they entered their d2l credentials. They then were at the homepage, where they seemed uncertain of what to click on until they took notice of the global navigation bar at the top of the website. They clicked on the magnifying glass icon, which represents the browse section. They then clicked on the browse courses tab, where they were faced with the accordion menu of majors. They then clicked on the animation button and saw the class list, where they then asked again which classes it was they had to look for. We repeated that we wanted them to look at ANI 101 and 300. They then selected the two courses, and the task scenario test was successfully completed.

Once the final prototype had been designed, our group performed a heuristics evaluation to check out our design matched up with the Nielson’s 10 heuristics.

1. Visibility of system status – DMS gives the user immediate and updating feedback. One method of feedback is in the form of a pop up alert. For example, whenever users send a direct message, they will receive a pop up alert letting them know that the message has been successfully sent. We also integrated a progress bar indicator that can be seen when uploading a project so they knew the status of the upload. Our site could still make use of extra system status visibility, especially for when the students leave a

comment on a project. We failed to create feedback to notify the user that their comment has been successfully made which would have been highly beneficial to the users.

2. Match between system and real world – DMS integrates the names of courses and the course level, such as ISM 220 or GD 200, so that students have a connection between the real world and the system. The majors as well are the ones available at the CDM providing another connection to the real world.

3. User control and freedom – This website integrates cancelability options such as “return to —” or an “x” button giving the user control and freedom of how they navigate through the site to complete certain tasks. The user has well as plenty of options on how they go about completing a task. For example, the search and browse page has various ways for the student to carry out a search whether they choose to do it through the search bar

4. Consistency and standards – DMS makes use of universal symbols in its design so that it is consistent with the standards. This can be seen in the global navigation bar since it makes use of symbols such as the magnifying glass for searching, home for homepage, dropbox symbol for uploading, and a group of users icon signifying the friends/people the user is following.

5. Recognition rather than recall – Our site could definitely use more recognition rather than recall elements because currently the only ones that are implemented include the campus connect login credentials that take away the extra set of username and passwords the students have to recall, and the list of courses and majors that provide for recognition when exploring in the explore page.

6. Flexibility and efficiency of use – The users of DMS have flexibility with certain pages such as the explore page. They can search for a project in three ways as opposed to one specific way. We also tried to make all of the features and tasks easy to use and accomplish by incorporating universal symbols and using simple language that would be easily understood by anyone with basic knowledge on the English language.

7. Aesthetic and minimalist design – We attempted to make DMS very simple to use and also tried to integrate a minimalist design. The site makes use of light faded colors so it is easy on the eyes. Also, DMS tries to make use of less pages for the user to travel through so that is why we tried to make certain features like the upload and notifications be seen as a popup or hover over feature since it wouldn’t need a separate page and would keep things minimal and simple.

8. Error prevention – The website makes use of buttons such as “go back” and “x” buttons that would prevent the user from completing tasks they don’t wish to complete. DMS also allows students to preview their post before uploading and making the post go live to the public. This is helpful in that it prevents any unnecessary errors that might erupt during the process such as uploading the wrong file, adding irrelevant tags, or inputting the wrong title. One place where the site could use more error prevention is in the messages page. Currently, the messages send as soon as you press the “send” button, however it would make much more sense if we had a pop up alert saying “Send this message to —?” with a preview of the message before actually sending it.

9. Help users recognize, diagnose, and recover from errors – We try to incorporate messages and small tasks that help students avoid making errors. For example, the “Preview Post” is a way for students to prevent errors that may arise during their upload process. We also have error messages present in the direct messaging page where students will be notified if they try to send a message with no content. However, our site could definitely use more error prevention especially in the direct messages page. A “Are you sure you want to send this message?” would have been highly effective and preventing any unwanted messages from being sent.

10. Help and documentation – DMS makes use of input hints in text fields so that users know what information to add in each field as well as the format. For example, when uploading a project the tags text field prompts the user with the correct comma format to use in order to ensure their tags are properly made. However, other than the input hints our site lacks any other form of help and documentation. We definitely could use forms of help in the search page since there are so many ways you can search a student might be lost and require some guidance.

Conclusion

As a group, we created a website that allows CDM students to upload and share their creative projects. They will be able to share their designs through our website and social media outlets such as Facebook and Twitter. Not only will they be able to share their work but they will also be able to explore, learn from, and be inspired by others and their work. It will also help students, who are creatively stumped, expand their knowledge and help students learn new techniques in programs like Photoshop, Illustration and many more. This learning process would allow them to analyze different perspectives of design and help them finalize their portfolio.

Appendix 1: Design Patterns

We used many design patterns to make our design user-friendly. The following is a brief summary of some of the design patterns we felt were most useful in the final prototype.

Design Patterns that were incorporated along the way in our final prototype are the accordion menu, breadcrumbs, two panel selector, modal panels, thumbnail grid, carousels, global navigation, pagination, progress indicator, cancelability, error prevention, and input hint. These pattern designs were important to our final prototype by making certain features more easily navigable.

We used an **accordion menu** for users to navigate through majors in order to reach classes that they wanted to browse. This is mostly used to save up space, if you have more than 2 main sections and more than 2 subsections we don't want the page to be overloaded nor the users to be uncertain of what their searching for. This was also so that the user was not overwhelmed with options. We incorporated this pattern design in the Browse Courses page in our prototype to keep our variety of courses organized and well-structured while searching through the different results that might come up.

We also incorporated the **two-panel selector** pattern design in our prototype to make our users browse more through our website and stay longer. This design pattern is effective when several of page elements are readily available to the user. It is designed so that when the user selects a category on the left-hand side, the right-hand side will display what the user selected. We incorporated this design pattern in my Profile Page in our prototype for users to browse and look through such categories in the same page with ease.

In our prototype we also included the **global navigation** pattern design in our prototype to tell the user where they are currently at, and to let the user easily navigate somewhere else as well. Our header represents this design pattern since it has all of the main features of the website in one toolbar. We wanted to make the icons easily identifiable to the user, so we used icons that have been used in other social networks such as Facebook and Twitter.

We also included **progress indicator** design pattern in our prototype while a project is being uploaded. Once the user selects 'upload,' a progress bar is shown immediately to give good user feedback. We wanted to incorporate this so the user knows that their request has been successfully recognized by the system.

We implemented **error prevention** in our prototype to guide the user towards the right path, and to help them make fewer mistakes. In our prototype, when a document is uploaded, the user is asked if they would like to preview their post before finalizing the upload. This is to ensure that the user has, in fact, uploaded the project or document that they desired to upload, as opposed to one that they may not want to share with others. If the user selects 'Yes' on the preview post page, the upload is approved and will go public. If not, the upload is cancelled. This ensures that the user has complete control of their uploads.

We also incorporated several **input hints** in our prototype in the text fields and in the search box text to make sure that the user knows what is being expected in this specific text field. For instance, we used an input hint on the text box on the messaging page to tell the user that they would use that search box to look thorough their messages. While some might have figured that was the original intention of the text field, it helps to add some helpful hint text for anyone who feels lost.

Appendix 2: Reflection

Working in this group has been satisfactory, most project instances were completed on time but it was difficult to communicate if someone was not lifting their entire load on some parts. In the end, we managed to get everything done on time and are proud of the final product. Even though there was a lot of work to be done in this project, working together made this experience overall far less stressful. Some of us had a harder time working with Axure but we helped each other to understand it to make it work.

We are very satisfied with the project. It looks even better than what we had imagined. We incorporated every member's ideas and designs into one main webpage. One of the things we would have done differently is the design of the search page. There was a lot of information to list in the search by class accordion. We weren't so sure which design patterns to use to make the search section be an easier access to users and to make the search less time consuming. Also if we would have had more time, we also would have created a mobile/app version of our website so that users could have used it on the go. We did have some ideas in mind for a mobile interface, such as linking user dropboxes from a computer to a mobile device so students can submit projects wherever they please.

Our perspective on interaction design has shifted completely, we have become more aware of design patterns used in apps/websites and it has

helped us design apps in other courses that were taken within the same term. What was most interesting about the process was in how user studies can help us know the needs, challenges and goal tasks of users. We also learned about how the data collected from the study helped us set guidelines to design our website. It was also interesting how prototypes and testing our prototype changed the design we had originally envisioned but at the end it just made it even better.

The most difficult parts about doing this project was integrating every members idea into one main design. Everyone had great ideas, but if we used all of them, the webpage was going to look too over-crowded. Using a new tool like Axure at the beginning was difficult because we didn't know anything about it but in order to understand it we used Axure's tutorials, YouTube tutorials and each other's help. We also felt rushed since terms at DePaul are not long and we also had other projects to work on, but overall it was a great experience and a great course.

Appendix 3: Group Contributions

The prototype was divided up into sections among all of us. Jenny Hanna was in charge of creating the upload modal window and the direct messages. Jenny Fuerte was in charge of creating the profile page, post page, and also the advanced search third tab in the explore page. Kyle Burger was in charge of creating the two first tabs that made up the explore page which were browse courses and browse majors as well as the login page. Karina was in charge of designing the homepage for DMS. We each helped one another when they needed some guidance, so it definitely was a total group effort to build the prototype for the most part.

The P4 High fidelity prototype document was divided up as well among us. Jenny Fuerte wrote the conclusion, reflection, and annotated three user stories. Jenny Hanna wrote the introduction, Prototype section, and annotated three user stories. Kyle wrote the users and content + overview of features sections as well as completed two user story annotations. Karina completed the design patterns appendix.