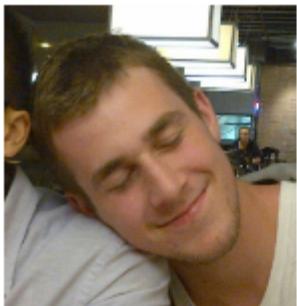


Pass 2 Prototype

EECE 418

Assignment 4a: Pass 2 Portfolio
by The UI Games



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A.1 Redesign Rationale

Prototype 1 was designed to be an exact, digital version of a traditional corkboard. It supported pinning photos and notes and allowed text to be added by writing with one's fingers on the touchscreen. It suffered from several major design problems as described below.

A.1.1 Prototype 1 Problems

A.1.1.1 Dedicated Hardware

As a digital corkboard, Prototype 1 required touchscreen hardware that would be mounted on a wall for maximum visibility. This presented a financial problem (touchscreen hardware of the desired size would be prohibitively expensive for many users) and a physical problem (such a device would be heavy and difficult to move, thus making sharing the device across teams and rooms unlikely). Also the digital corkboard might require additional accessories such as a stylus to write onto which can be easily lost.

A.1.1.2 Lack of New Functionality

Since Prototype 1 was designed to be an exact replica of a physical corkboard, it had no additional features that made it more useful than what it was designed to replace. A physical corkboard is not only easier to use but also cheaper and more convenient since its usefulness is not limited to the features supported by the system.

A.1.1.3 Lack of Focus

Prototype 1 tried to appeal to two very different groups of users: home users such as families and office users such as software engineers. Trying to support both use cases meant that the prototype specialized at neither. It provided no real incentive for either home users or office users to purchase it. The target users of prototype 1 was too wide so the design features couldn't fully satisfy the needs of neither target group users.

A.1.2 Prototype 2 Solution

Prototype 2 is specialized to the office environment and is designed to bring the benefits of social media to the workplace. To promote camaraderie amongst colleagues, some companies use products like HipChat where employees can communicate with coworkers in chat rooms segregated by topic. Topics might be team-specific for chatting about the current project or even company-wide for sharing funny images. These products provide a platform for new employees to begin interacting with colleagues in a casual way, thus building up a better sense of community and friendship within the workplace.

We propose a new product that will improve upon existing chat products by integrating collaborative media boards, chat rooms and announcements into one web application. Not only will this provide a platform for new employees to get involved and feel welcomed, it will also foster team spirit and inter-team collaboration by providing a public space where employees can share photos, messages or announcements with the rest of the company.

The system will not contain its own login system. Instead, users will log in with third-party, OAuth-based social authentication systems such as Google+ and Facebook. User accounts will still be registered by a system administrator, at which point the social account

matching that name will be able to log in. This allows users to use whatever login system they are most comfortable with and also removes the need for complex account management within our design.

A.1.2.1 *Media Boards*

Media boards are very similar to our Prototype 1 design. Employees can “upload” images and videos by clicking a button and providing a URL, or by uploading the image from their hard drive. The board will load the media and display it in a free location on the screen. Videos will only play if a user clicks on them, similar to how embedded YouTube videos work on Facebook.

These boards can serve different purposes, though they are primarily social spaces. They can be used to host images and videos of a company event or could also provide a space for employees to share funny pictures. This will be the fun social media side of the prototype.

A.1.2.2 *Chat Rooms*

Chat rooms are a space for teams to communicate (HipChat’s primary feature). Chat rooms can be company-wide, team-specific or for any other group in the company. The bulk of the screen is reserved for chat space (i.e., where the messages from other people are displayed). This chat screen will be centered on the application so users can focus on the conversation. Uploaded files are listed in a separate column, along with a caption or description. These files can be tagged for specific users so that those users are alerted the next time they open the web application. This could be used for reviews, such as when a designer does a quick sketch that they need the team’s leader to provide feedback on. The tagging feature will also work in the chatbox to tag a specific message to someone in the chat room.

Chat rooms provide a space for employees who share similar interests but may work in the same office. For example, a group of employees might have a chat room devoted to books where they could share recommendations every once in awhile, while another group of employees might use a chat room for programming help, similar to StackOverflow.

A.1.3 Advantages over Existing Products

Our design provides a connected, company-wide space for employees to communicate and share ideas. Chat room platforms, such as HipChat, do not support photo sharing very well (users must scroll up to see any photos that were uploaded earlier), while our design makes all photos on a board visible at once. Combining both chat rooms and media sharing into a single product brings the benefits of social media into the workplace and helps create a sense of connection amongst employees.

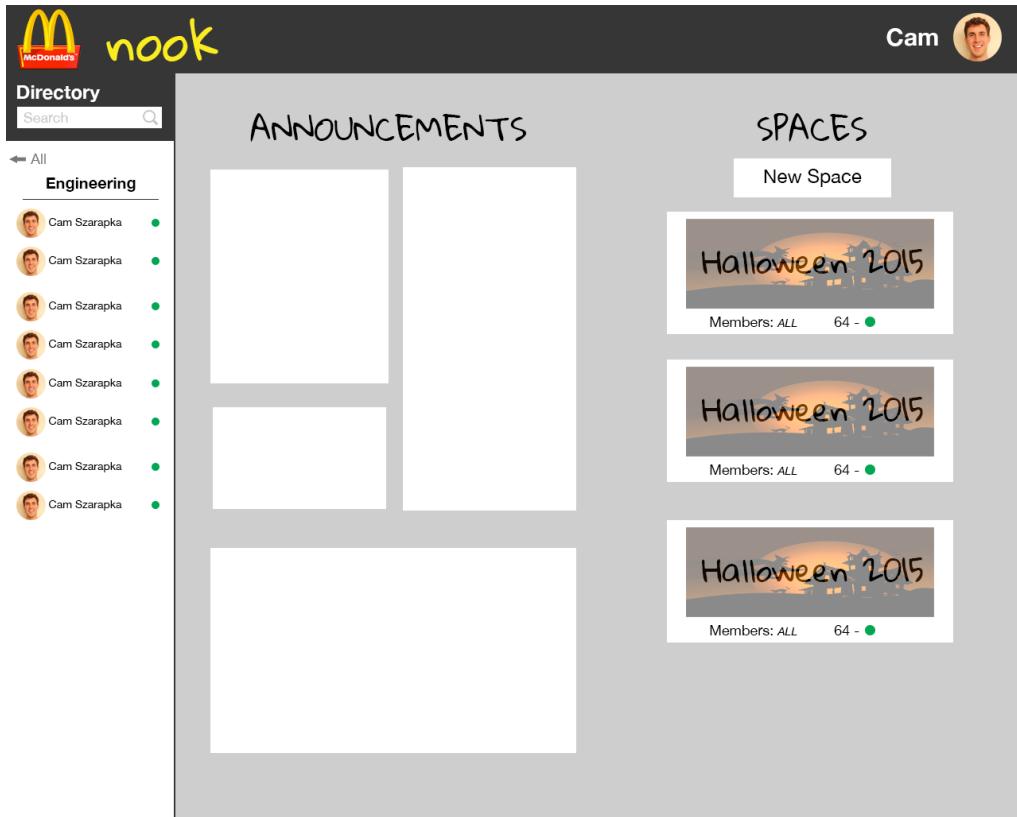
A.2 Paper Prototype for Pass 2

A.2.1 Detailed Design Description

A.2.1.1 *Home Screen*

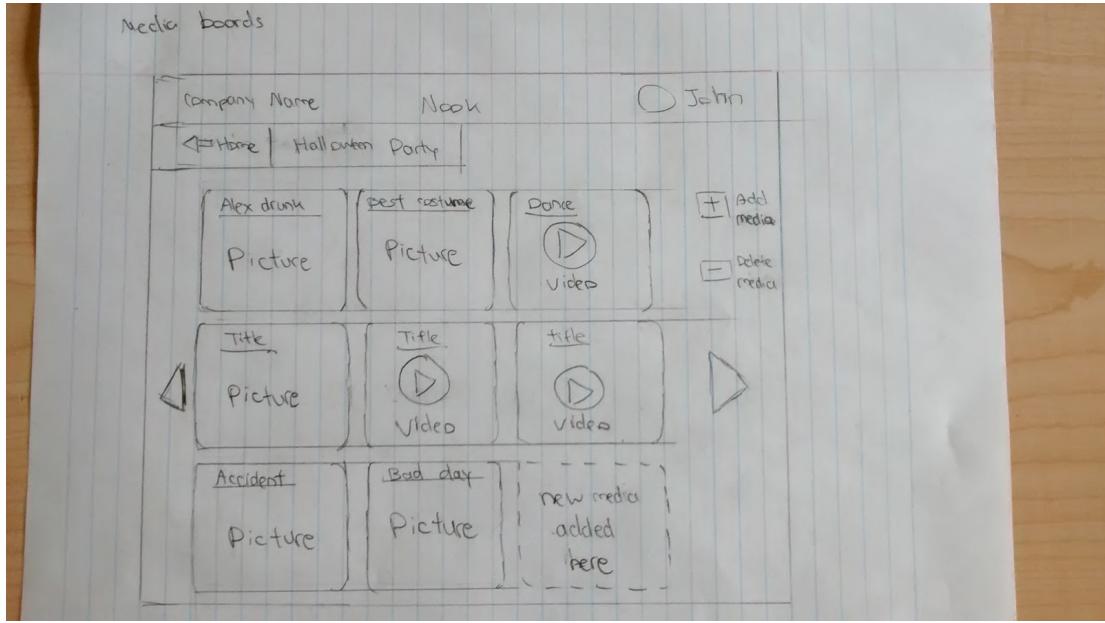
The home screen contains links to all existing chat rooms and media boards to which the current user has access. Clicking any of these will take the user to that room or board. The home screen also has a chat directory for personal chat (separate from chat rooms). Clicking on a user will open a one-on-one chat window with that user.

The centre of the home screen is filled with announcements. These announcements could range from local invitations like “Vancouver office: soccer at lunch today” to company-wide announcements like “Congratulations to the Sales department for their 500th sale this year!” Announcements can be added by clicking the “New announcement” button.



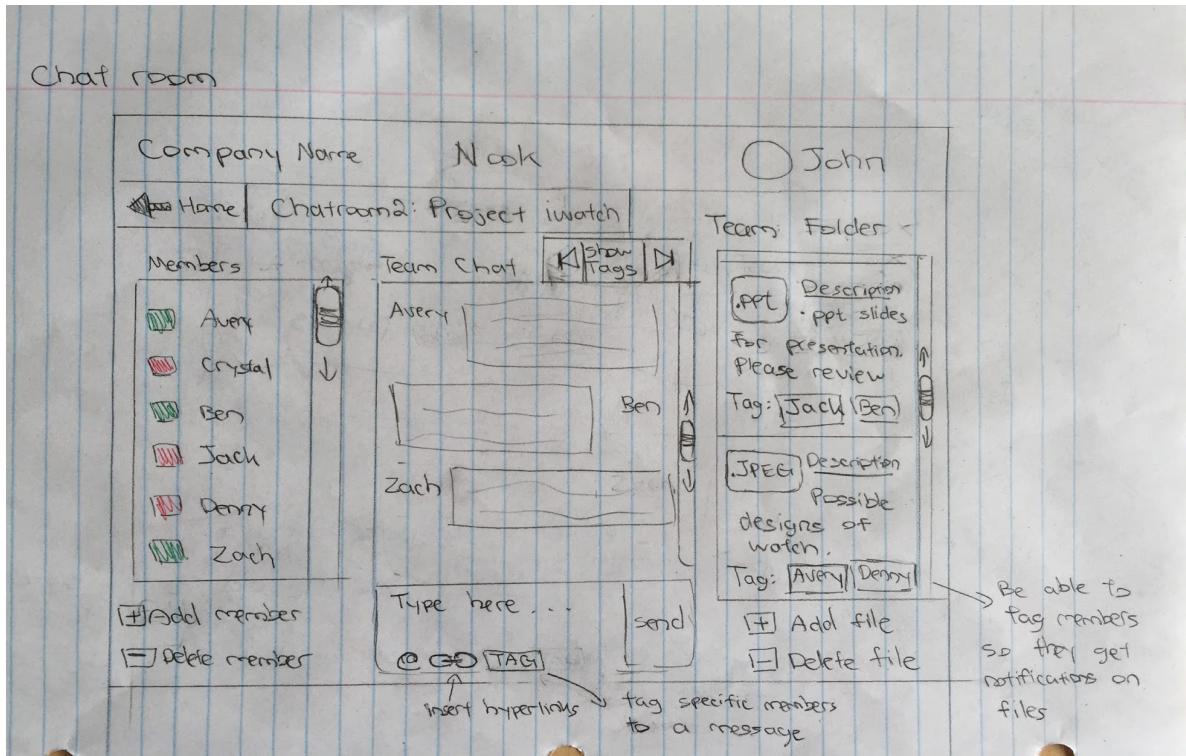
A.2.1.2 Media Board

A media board contains several rows of images and videos. Users can scroll left or right by clicking on the arrow buttons; these buttons cause all of the images to shift left or right and show new ones. A “Home” button returns the user to the home screen. An “Add media” button opens up a window where users can either upload media or link to an external URL. Selecting a media item by clicking on it allows that item to be deleted by clicking the “Delete media” button.



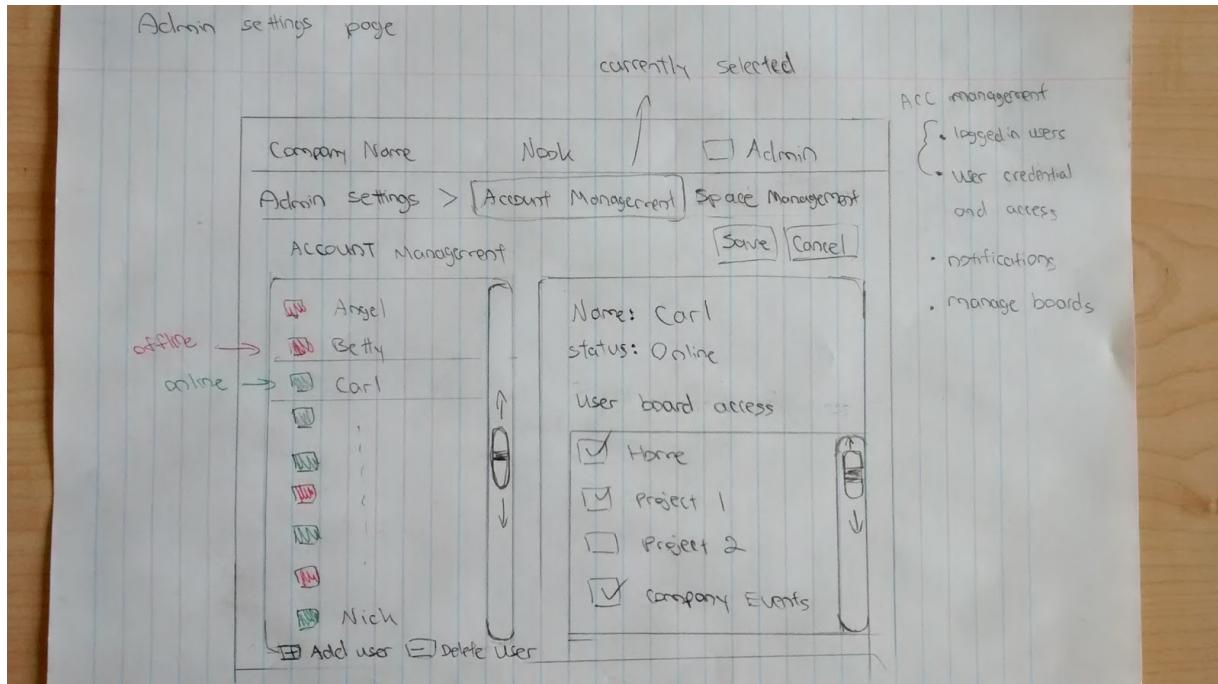
A.2.1.3 Chat Room

A chat room can be specific to a team, a group of employees about a specific topic, or company-wide. Employees can chat with one another by typing in the chat box and can share files by uploading them to the Team Folder space. These files can be captioned and can also tag other users so that the other users are alerted about the new file. Users can also tag other users in the chat, and users can jump between messages that tagged them by clicking the "Show Tag" button.



A.2.1.4 Administration Screen

The administration page allows company administrators to create new users, delete existing users, and grant users access to specific chat rooms or media boards.



A.2.2 Cognitive Walkthroughs

Our cognitive walkthroughs revealed *** issues with our paper prototype.

A.2.2.1 Space Access

Since anyone can create a media board or a chat room and add colleagues to it, administrators will never need to manually give someone access. If the board or room is public, everyone has access to it, and if it is private, then someone in that space must invite new people. We will remove the "Board access" controls from the administration page in our medium-fidelity prototype.

A.2.2.2 Space Deletion

The paper prototype has no way to remove old Spaces. In our medium-fidelity prototype, we will replace the current "Board access" space from the paper prototype with a board deletion space.

A.2.2.3 Space Requests

Our prototype did not address what happens if a user tries to access a board he or she does not have access to. Our solution is as follows. When a user tries to access a board he or she cannot access, a box pops up that asks the user if they would like to request permission to access the board. If the user clicks "Yes," every member of the group receives a personal

chat that the user wants to join the group. Any of those users can then click “Accept” to allow the user into the group.

A.3 Medium-fidelity Prototype

The screenshot shows the Admin Page for 'the office Nook'. At the top, there is a navigation bar with links for Home, Announcements, Spaces, and Directory, along with a search bar labeled 'Search Directory...'. On the right side of the header is a profile picture of Cameron Szarapka.

Users

Vincent Chen	Online	Delete
Jacky Ma	Online	Delete
Milo Carbol	Offline	Delete
Chris Xiao	Online	Delete
Cam Szarapka	Offline	Delete

Add User

Spaces

Funny Pictures	Delete
Engineering Team 1	Delete
IT Maintenance	Delete
Halloween 2014	Delete
Christmas 2014	Delete
Pictures	Delete
Quality Assurance	Delete
Lunchtime Sports	Delete
Board Games	Delete
HR Chat	Delete

Image 1: Admin Page

The screenshot shows the 'theNook' company directory interface. At the top, there's a navigation bar with links for Home, Announcements, Spaces, Directory, and a search bar labeled 'Search Directory...'. On the right side of the header, there's a user profile for 'Cameron Szarapka' with a small profile picture.

The Company Directory

Filter by: Department: Engineering ▾ Last Name: Starts with... ▾ First Name: Starts with... ▾

A

Aranguutan Sammy
Department: The Dark Side
Position: Sith Lord
Email: forced2beBad@gmail.com
Phone: (604) 000-0000
Company Status: newb

Ardvark Johnny
Department: The Dark Side
Position: Sith Lord
Email: forced2beBad@gmail.com
Phone: (604) 000-0000
Company Status: newb

Albino Jim
Department: The Dark Side
Position: Sith Lord
Email: forced2beBad@gmail.com
Phone: (604) 000-0000
Company Status: newb

B

C

Cameron James
Department: The Dark Side
Position: Sith Lord
Nuance PDF Reader@gmail.com

Cameron Stewart
Department: The Dark Side
Position: Sith Lord
Email: forced2beBad@gmail.com

Image 2: Chat room page

The screenshot shows the 'theNook' chat room page. At the top, there's a banner with a city skyline background and the text 'Welcome to the Nook! This is a company-wide announcement about our upcoming boat race. Giddy up!' Below the banner, there's a blue button labeled 'Sign up today'. The main content area features a section titled 'Check out the most popular Spaces' with three cards: 'Funny Pictures (MEDIA)', 'Christmas 2014 (MEDIA)', and 'Lunchtime Sports (CHAT)'. Each card has a brief description and a link.

Check out the most popular Spaces

Funny Pictures (MEDIA)

Post your funny pictures here!

Christmas 2014 (MEDIA)

Share your best photos from the Christmas party!

Lunchtime Sports (CHAT)

Chat room for organizing sports at lunch.

file:///C:/Users/ChrisX/Dropbox/UBC/Year4/EECE418/Pass2/418-prototype/meteor/home_page.html#myCarousel

Image 3: Home Page

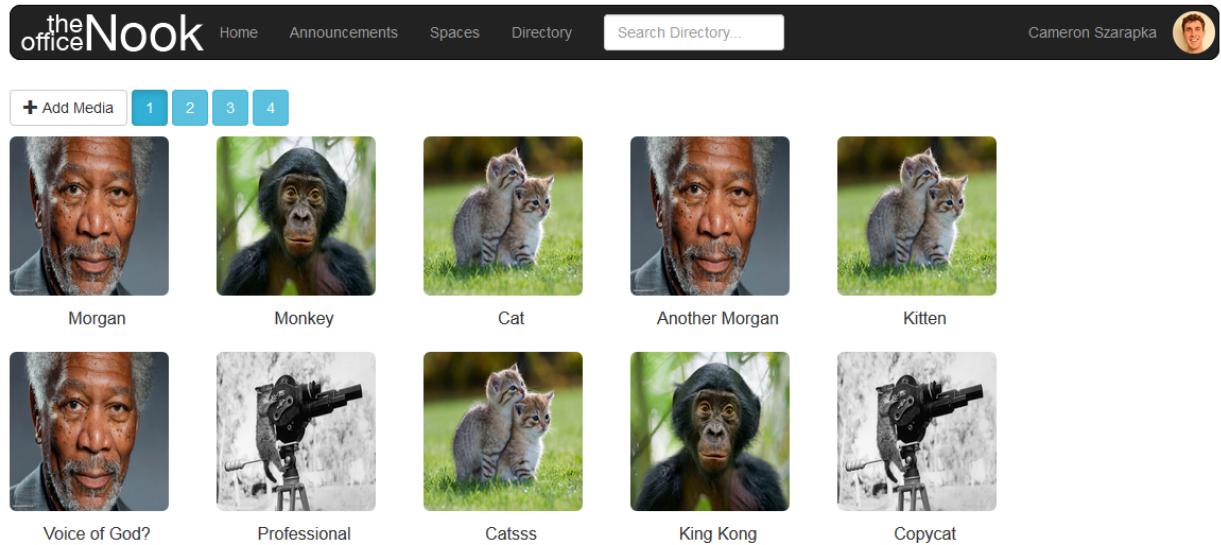


Image 4: Media page

Image 5: Announcement Page

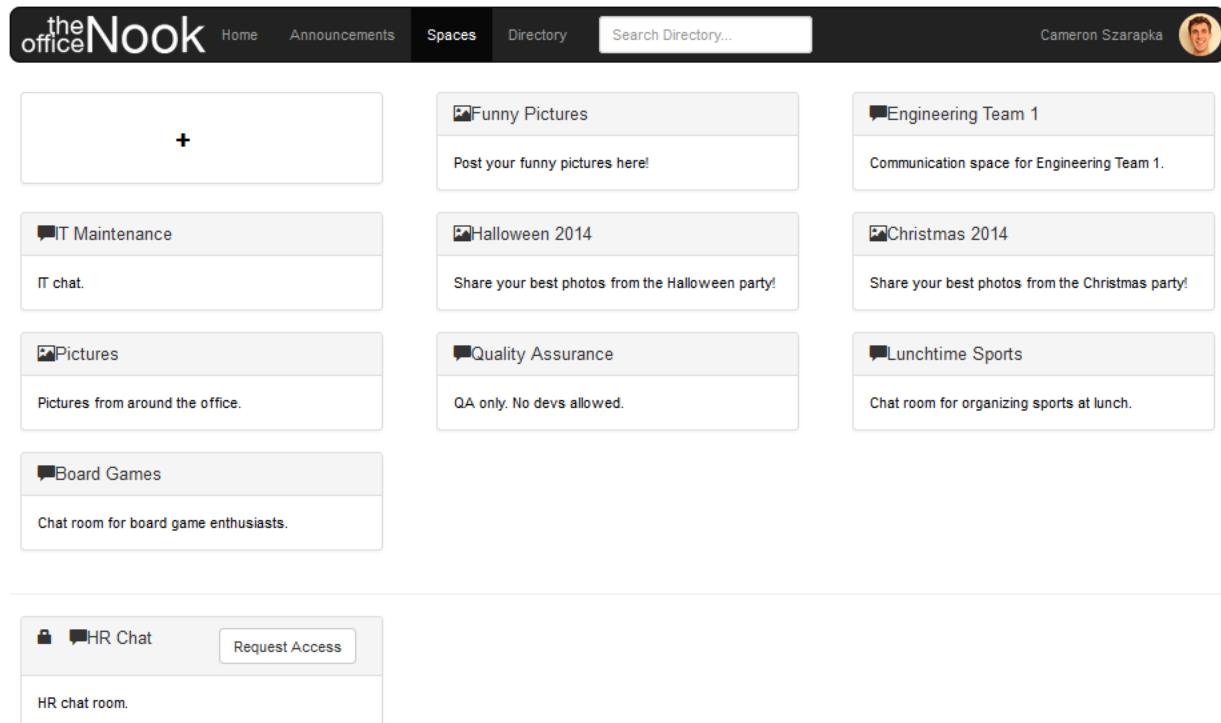


Image 6: Space Page

Title
Hi!

Content
Hi there! This is a test announcement.

Tags

- engineering
- hr
- vancouver-office
- burnaby-office

Submit

Image 7: New Announcement Page

B.1 Evaluation Protocol

Since our design is focused on encouraging social connections in an office environment, particularly for new employees, our sample group will consist of software engineering students who have recently completed one or more co-operative work terms. Since software companies involve a high level of computer use, these students will have experience in the type of computer-heavy office environment our design is focused on.

Additionally, since the co-op program usually involves taking positions at multiple companies, these students will have a variety of experiences to draw on when answering our questions.

Our study group will consist of five students with previous co-op experience. We will perform two analyses: a qualitative survey relating to their social experiences at work, and a quantitative study in which they will perform timed tasks with our prototype. We will use this time data to assess whether our features are easy to find and how intuitive our interface is.

B.1.1 Qualitative Evaluation

To assess the market and need for our design, we will ask our sample users to answer the following questionnaire with respect to their most recent job.

1. How long did it take before you felt comfortable initiating conversation with people outside your team?
2. Did you ever try to initiate any social events? If no, why not? If yes, how did you do it? Did it work?
3. Did anyone else initiate any unofficial social events? How did you hear about them?
4. Did the company display photos from company events anywhere in the office? Did you look at them? If no, why not?
5. Did you know anyone who worked in a different location? How well did you know them? How did you first start talking?
6. Did you have any method of communicating with people at different locations, such as Google Chat? How frequently did you use it?
7. Did you read mass emails? If no, why not? If you only read some, what made you read those ones and not others?
8. Did you use any file-sharing tools to share files with teammates (not including source code)? How frequently did you use them?
9. For one-on-one communication, did you use email or chat more? Why?
10. Did you talk with colleagues about non-work related topics? How frequently? What types of topics (entertainment, hobbies, etc.)?

B.1.2 Quantitative Evaluation

To assess the usability of our design, we will ask our sample users to perform various tasks using our prototype. We will time these tasks with a stopwatch and look for anything that takes too long. If the average time for a task is unusually long, we will assess the need to redesign that part of the interface. If the times for a task vary widely between our sample users, we will investigate whether this is due to previous experience (or a lack thereof) with similar interfaces.

The tasks we will ask them to perform are listed below.

1. Find the media board titled “Pictures.”
2. On the “Pictures” board, find and delete the picture titled “Click me, then delete please.”
3. On the “Pictures” board, upload a picture.
4. Find the chat room titled “Engineering Team 1.”
5. Invite the user “Milo Carbol.”
6. Create a new media board called “Test.”
7. Go to the “Test” board and upload a media item using the URL “<http://localhost/1234>.”

8. Go to the Administration page click the delete button for 3 users: “User1,” “UserX” and “User.” Note that there is no link to the administration page, so you’ll have to type it into the URL bar: <project_root>/admin_page.html.
9. On the Administration page, add a user named “John Smith.”
10. On the Administration page, click the delete button for the “Pictures” media board.