Redesign of Google Classroom
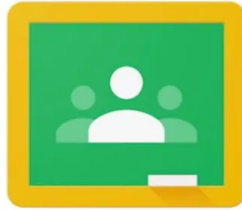
Team 2

Narayan Sharma

Priyank Singh

Sagar Mittal

Link to prototype available here

Problem

As users of Google Classroom (on desktop), we noticed a particularly annoying problem with the platform. One of the TAs had posted a google sheet which we needed to keep referring back to on the 'stream' page. However, in order to reach that, one had to scroll through all previous posts in order to access it. Through this experience, we began questioning the issues we faced with the platform and what features could help it feel more like a physical classroom. Our approach leads us to focus on Students as the primary users for this project. From our experiences and using the physical analogy, we created the following list of issues we sought to tackle with our redesign.

Location Information on the Stream

Finding previously posted information on the stream is a pain point requiring scrolling and memory of the location post or files one wants to find.
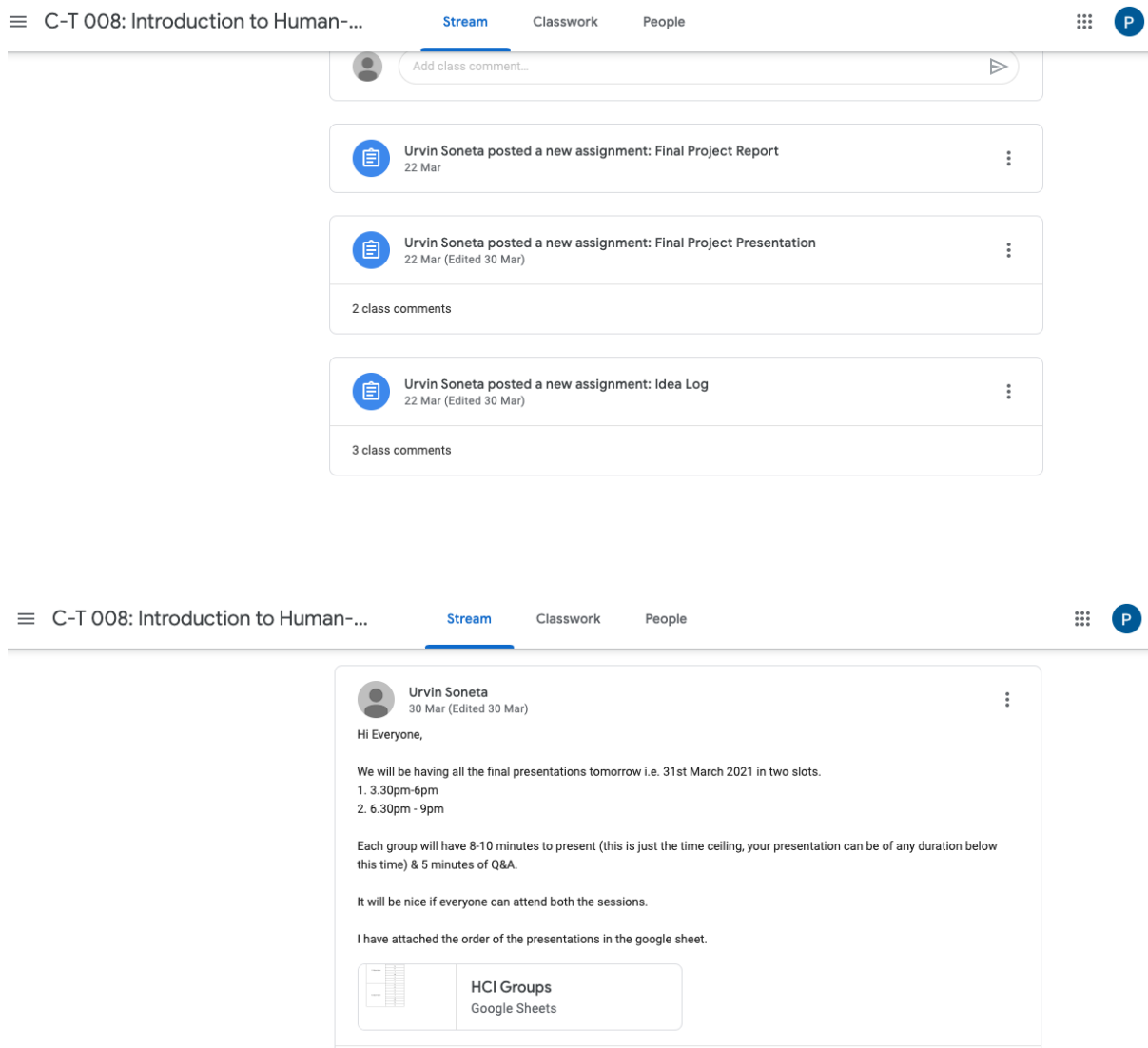
Communication

Having to go to a different platform to interact with fellow students and share content was a struggle, the people page only provided an email link

Sharing and Viewing Other Work

Showcasing student work and accessing resources (such as with a pinboard in a physical classroom) was difficult as all users submitted assignments privately and were only viewable by teachers.

Easier methods to request extensions

Mid-development of the prototype, we ran some early tests and received feedback about the potential benefit for teachers and students to have a simpler way to request extensions and added this into our problem set.

Benchmarking/inspirations

We explored features in other apps which would be helpful in solving the aforementioned issues depending on their synergy with tackling the problems we identified.

Pinterest's Boards

An obvious benchmark to mimic a pinboard showcasing the work of individuals.
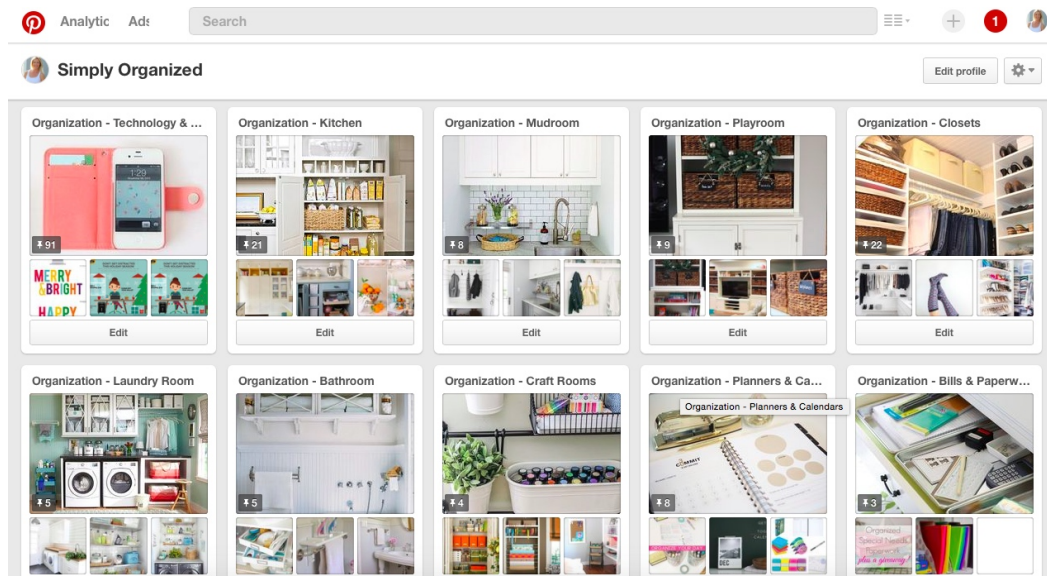
Whatsapp

Used as a reference for a chat interface due to its ubiquity and simplicity.

Hangouts' chat

To understand how Google has done simplified chat, it also had a people tab that overlapped with the People page in Classroom
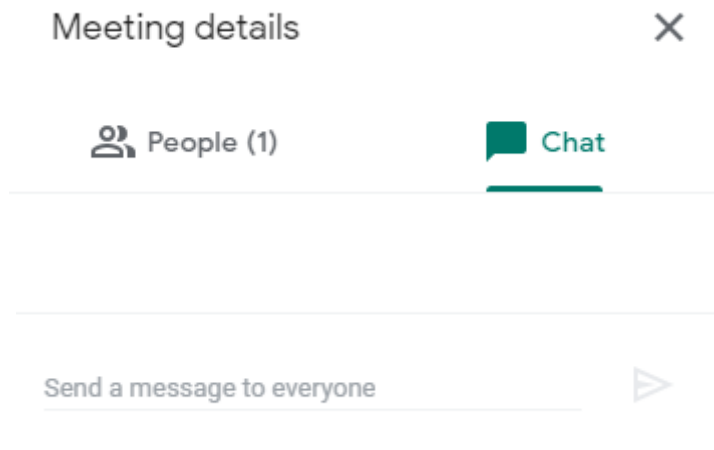
Google Drive

In a similar vein to Hangouts, we referred to Drive to remain consistent with the Google experience in terms of content and file management.
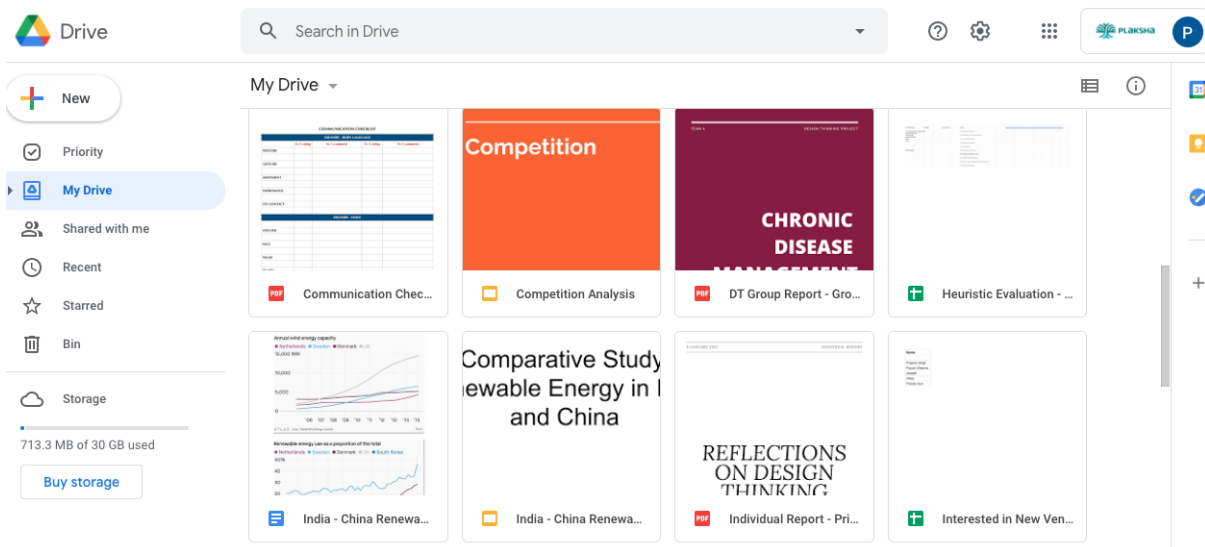
Redesigned Prototype

The technique we choose for re-designing the interface, both for the purposes of learning and in order to best simulate the existing product's experience, was to create a high fidelity prototype that felt almost identical to Google Classroom and then to test it on existing users (our classmates) in order to see if we succeeded in meeting our objectives set earlier.

We added 4 main features and made some tweaks which we deemed would make the platform more useable (not all aspects of which were functional in the prototype due to time constraints).

Pinning posts on the stream

Every post has a pin icon, when a user pins the post, a simple toggle at the top of the stream will allow them to view all their pinned posts.

Showing 1/1 Pinned Items   All Posts   Pinned

Timmy Barnes
8 Mar

Hello Jill, hope you're good! We've been looking forward to our final assignment feedback and grade, any updates from your side? Thanks

1 Class Comment

Jill Cosworth 10 Mar

Hi Timmy! We are almost done with the grading. Just doing the final calculations of the overall course grade and a few more formalities such as running the assignments through Turnitin to ensure there is no plagiarism etc. We should be able to return GA2 with grades and feedback by tomorrow and upload the overall grades shortly after.

Add a class comment

Chat interface

A WhatsApp and Hangouts inspired chat experience was added which is accessible through an overlay for easy access whenever needed.
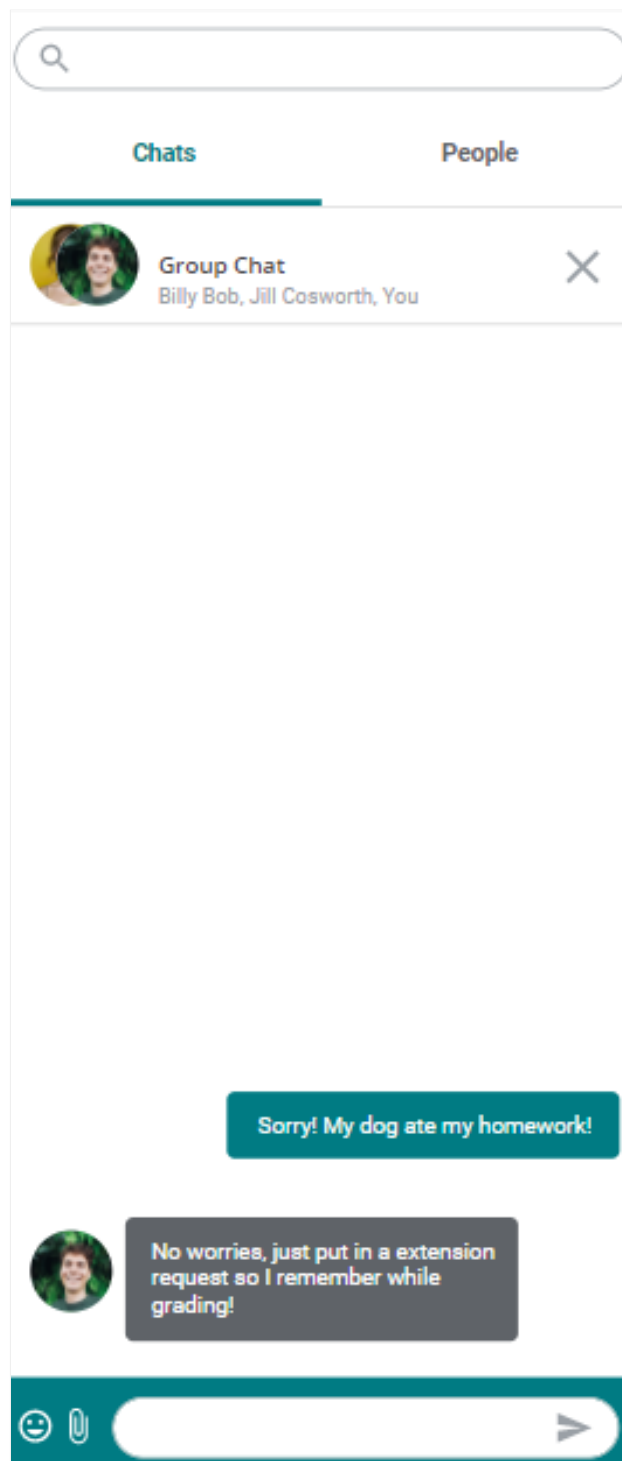
The chat enabled the removal of an entire 'People' page which had extremely limited functionality, only allowing users to view a list of all the people who were taking the course and opening Gmail to email them.

Boards

Inspired by physical boards and Pinterest, we designed a page to replace the redundant 'People' page called 'Boards' which would let teachers put up useful resources and showcase other students' work. Students can also customise their own board to create a personalised content hub for the class.
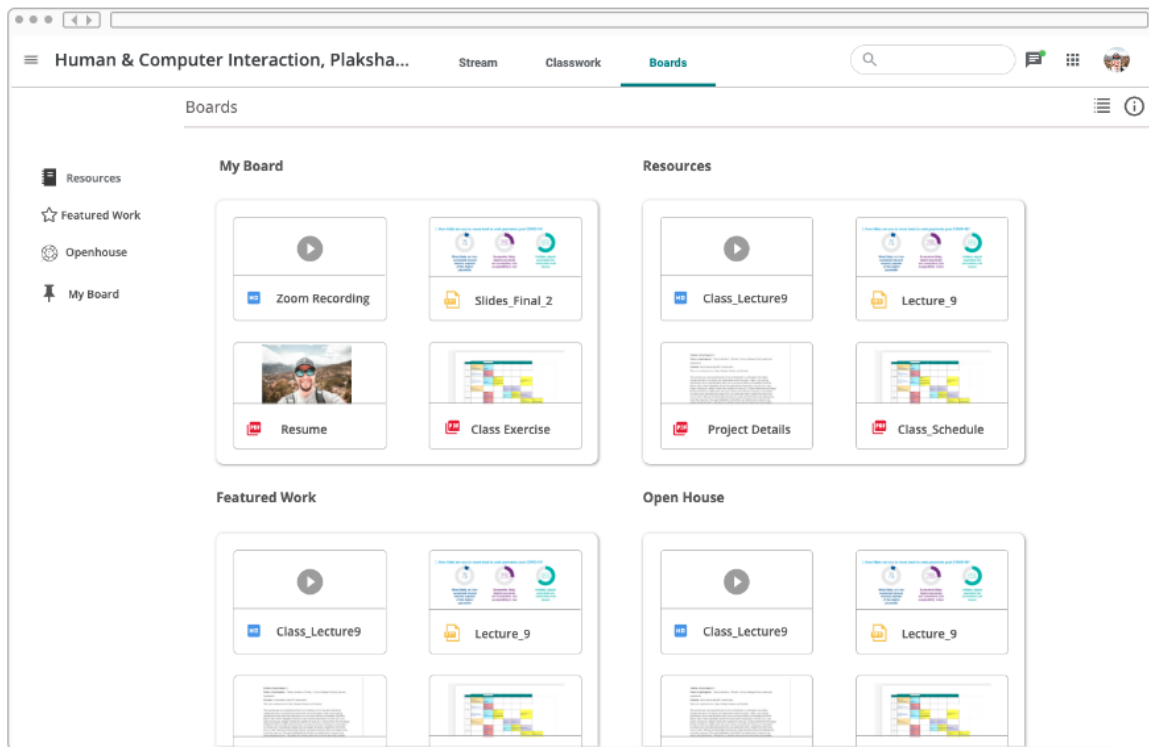
Request for extension/leaves

A quick way to request extensions and leaves was added as a pop-up form for students. This feature would provide the benefit for administrators and teachers to have a centralised location (not c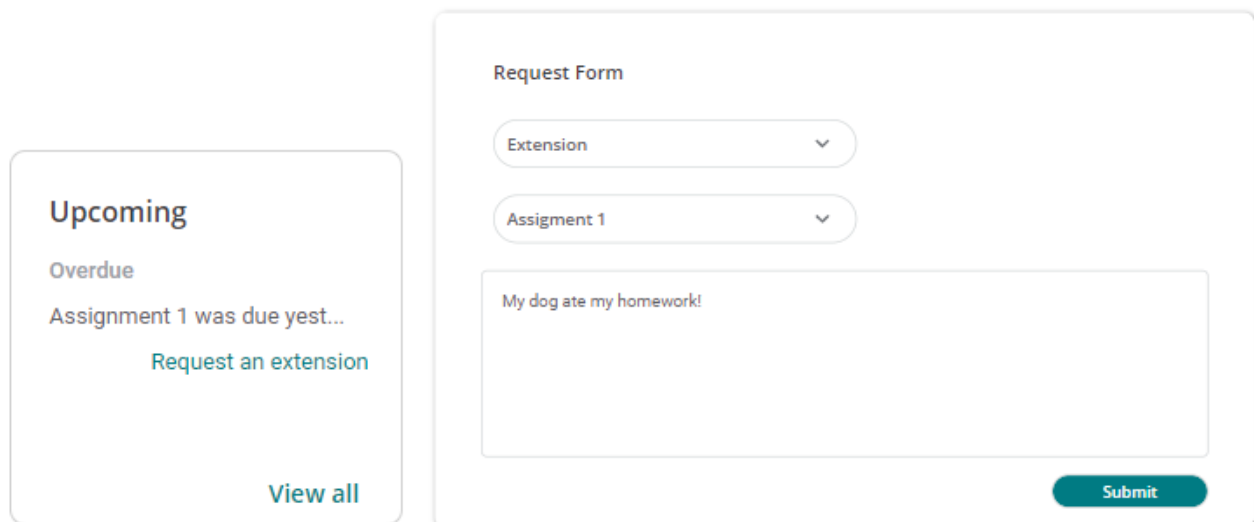reated for the purposes of this prototype) to track such requests conveniently and not have to resort to digging through email, this feature was suggested by a teacher when we test the prototype mid-development.

Search

This was added as searching through classroom documents and posts should available to users. It is still uncertain why Google, the literal synonym for search did not have such a feature on their platform. We created a small micro-interaction to make the search engine pervasive across classroom content and chats.
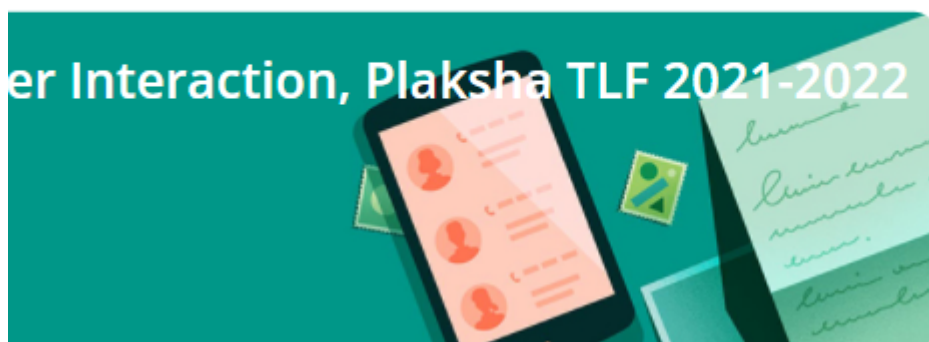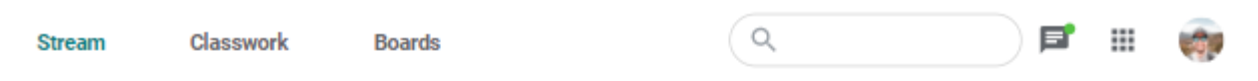
User testing

Testing Demographic

Due to time limitations and accessibility, we narrowed our target audience to existing users of the platform i.e. our classmates. These were users between the ages of 21-32 years, largely male, though we did not ask for any demographic information during testing, but as this was known from our cohort's demographics.

Gamification

We employed a fairly unique strategy in our user testing. Traditionally considered a fairly monotonous and boring exercise for many, given the familiarity we had with the user base we attempted to gamify the testing experience by creating a narrative and a scenario that the tester would role play in.
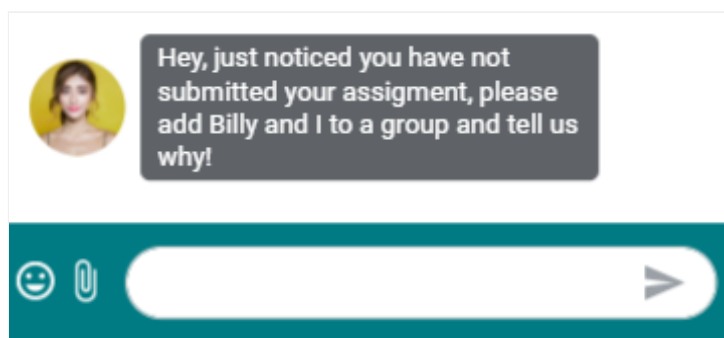
Adding instructions in the chat interface to direct users to the next feature
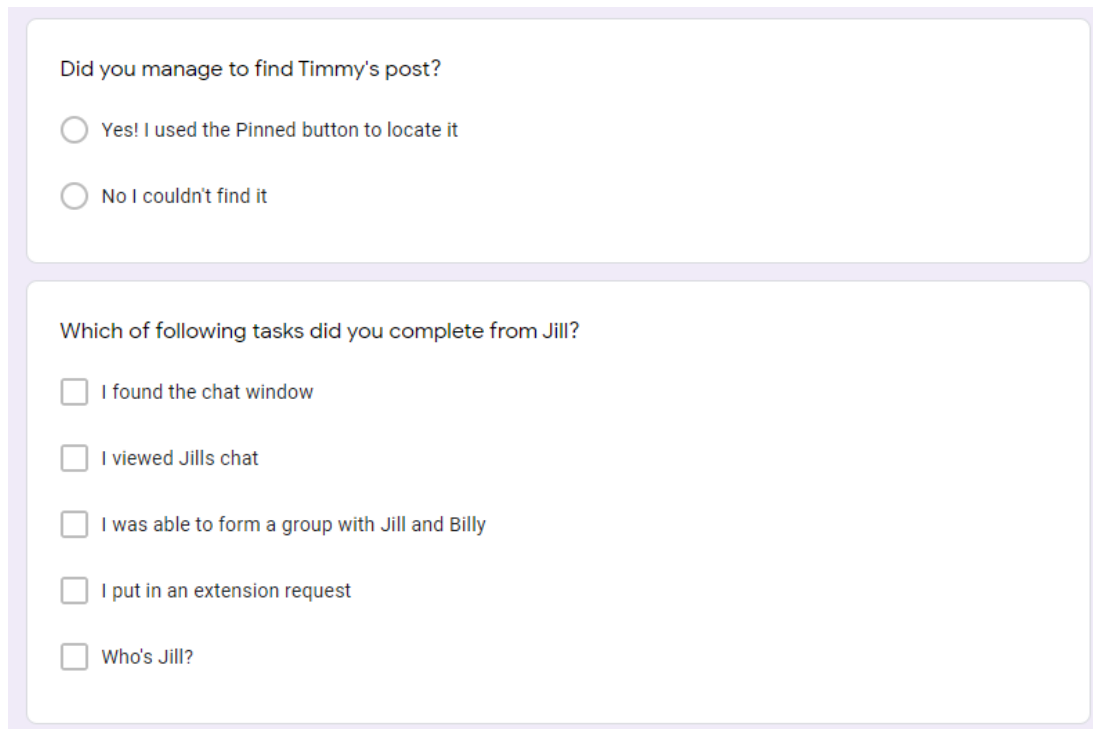
This involved pretending to be a student in a class trying to solve a few tasks with relation to an upcoming assignment. We specifically did not hint at or explain any of the features to see if users could understand them intuitively. As we tested existing users of the platform, our aim was to create solutions that would feel like a natural extension of both the Google Classroom and the G-suite as a whole.

Using references to our classroom and an end reward to make the process more engaging
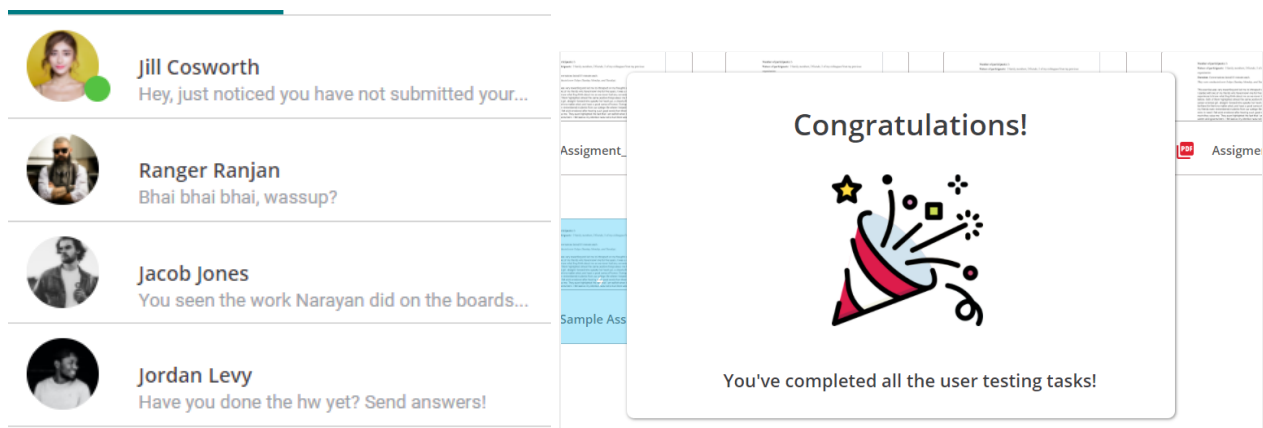
Feedback forms

We utilised Google Forms as a way to collect user feedback and data on their experience, this served as a great way to introduce the scenario, tasks to be tested and capture responses for a remote setting. Through a combination of option, checkbox and long-form text-based questions, we obtained both quantitative and qualitative feedback for our prototype quickly and easily.

Did you manage to find Timmy's post?

◯ Yes! I used the Pinned button to locate it

◯ No I couldn't find it

Which of following tasks did you complete from Jill?

☐ I found the chat window

☐ I viewed Jills chat

☐ I was able to form a group with Jill and Billy
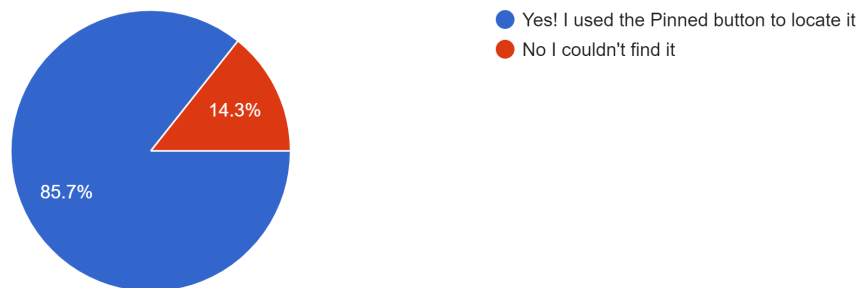
☐ I put in an extension request

☐ Who's Jill?

The language used was in line with the role-play aspect of testing

Results

Navigation

Did you manage to find Timmy's post?
7 responses

- Yes! I used the Pinned button to locate it
- No I couldn't find it

14.3%

85.7%
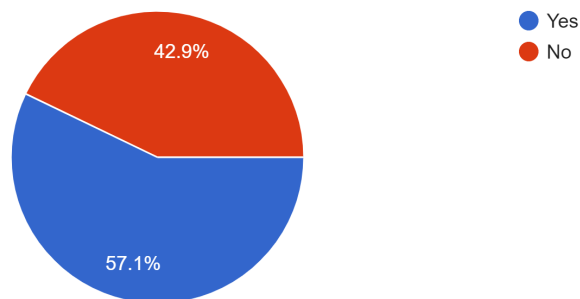
Users were able to quickly and easily use the pin feature added to the homepage. However, when it came to deeper navigation into the newly added boards functionality (to locate a sample assignment) they faced more difficulty.

Were you able to locate the sample assignment?
7 responses

- Yes
- No

42.9%

57.1%

Users won't read your content

Narratives didn't seem to pay off, though we had an entire functionality (of creating chat groups) added as a task and directed by the aforementioned chat content, none of our testers managed to complete that task, suggesting that though they reviewed her chat, they did not follow the instructions provided by her.

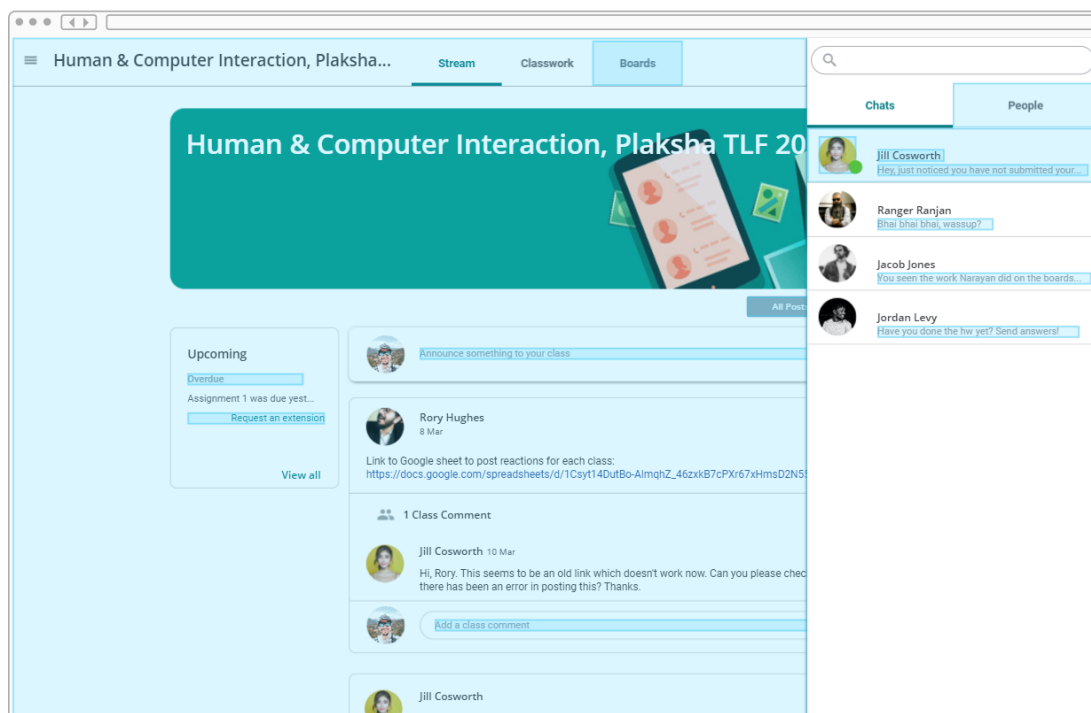## Which of following tasks did you complete from Jill?

6 responses
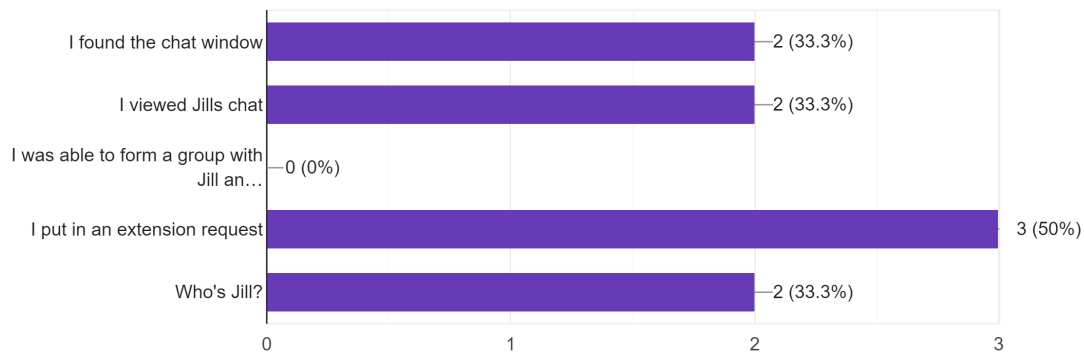
Prototyping Tools Have Flaws

A user stated the following in a comment after testing:

"I figured out the workflow only due to the blue boxes that got highlighted when I pressed on elsewhere."


This led us to examine our tool once again and realised that upon a click, all other click-able areas were highlighted for every user even though we had disabled it from our end. This seemingly was intended for usability but brought into question the validity of the previously stated navigational results. How many more users only managed to figure things out due to the blue boxes?

Conclusion

Did the new features seem helpful to you?

7 responses
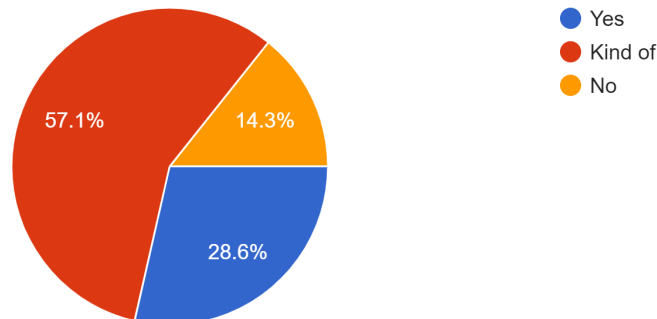
Though our ideas seemed sound and our implementation in line with existing best practices, unsurprisingly user testing revealed many gaps in both. However, that was the purpose of the first iteration of the prototype and we would have liked to delve deeper into both testing and getting more detailed feedback in order to improve upon and build the next iteration of our prototype. It did seem that we were on to something, as the overall impression of our users was that there was some value to be found in our new features, but as with any new idea, it would require significantly more time and effort to refine them. It would be interesting to see if and when Google does expand the feature set of Classroom, how they would approach some of these problems in the future.