# Requirements

Team AERO conducted interviews with potential users of UNSW Dreams in order to recognise problems in the user-system interaction and beginning planning solutions that future UNSW Dreams development will focus on in order to improve the user experience.

## Elicitation

For the purpose of identifying problems in the user-system interaction between the UNSW Dreams website and a heavy user, two potential users who are familiar with teamwork-driven platforms such as Microsoft Teams and UNSW Moodle, were invited to use the UNSW Dreams website and then interviewed on their experience. Responses are recorded below.

Interviewees:
   a. name: Daniel So
      email: daniel.so.gd888@gmail.com

   b. name: Cameron Suen
      email: cameronsuen13@gmail.com

Responses
   1. Do you have any initial thoughts on the UNSW Dreams website, specifically its design and accessibility? Was any part of experience difficult to navigate or understand?
      a. No, the site was quite self-explanatory.
      b. It was confusing to have so many channels in the sidebar especially since I couldn't join all of them.

   2. What is a typical interaction between yourself and a platform such as UNSW Moodle or Microsoft Teams?
      a. I will log on and navigate to any active course channels and check if there are any course announcements or if there is anything I have to complete or submit or any meeting I have to join.

      b. I might see some notification on my phone and then go to the site to read the announcement or message. I will probably go to my course channels and see if I missed anything. If I have any questions I would post them in discussion forums or Teams channel.

   3. How often do you log on to platforms such as Microsoft Teams or UNSW Moodle as opposed to checking your email for notifications?
      a. I usually prefer to log on to my email and check that for any notifications on other platforms which I will navigate to from there.

      b. I use my phone and laptop for any push notifications from apps like Microsoft Teams and my email because it's the fastest way to.

4. How much do you rely on websites "remembering" you as opposed to logging in?
   a. I don't. I log in every time.

   b. I stay logged in all the time. I'm not bothered to log in every time even though I know it's not very safe.

5. Have you ever forgotten your password on any of the sites mentioned above or social media? If so, how did you retrieve it or regain access?
   a. A couple times, Usually I click 'forgot password' and then they send me an email and a make a new one.

   b. I have, especially if I'm logging on with a different device. I'll click forgot password or log in with my email or Facebook if I can so I don't have to make a new password.

6. Do you have any reservations about using the UNSW Dreams website?
   a. Safety mainly. I would want the passwords to be securely stored and for any personal information, messages and files to be encrypted on both ends.

   b. It seems a bit difficult to navigate to a specific channel when all of them are listed in the sidebar, I think if this were used uni-wide it would be very difficult to find my own channels.

      I also noticed you can't edit or see timed messages after they are sent or even the name of dm groups, or the privacy of channels. I'd like to be able to change more things.

7. What would make the UNSW Dreams website more accessible to you personally?
   a. If there was an app or something that meant you wouldn't have to log on to see notifications.

   Are there any other ways integrating the site with other applications like your email might improve the user experience?

      Sending emails would be useful but not spamming. Linking due dates to device calendars might be helpful.

   b. Maybe notification for messages not just tagged ones.

      And if there was an app or an email so that I could see them quicker without having to go on the site.

      The profile picture positioning was a little confusing too.

      Also, when tagging people, you need to type out their name and I think it would be easier if there was some kind of contacts list in case you misspell something.

In summary, the problems in the current UNSW Dreams website include,

- Design: Having all channels visible makes it difficult to the channels relevant to the user.
- Integration: User has to navigate to the site in order to view notifications which is inconvenient and may lead to them missing updates or discussions.
- Adaptability: Channel privacy, timed message contents and DM names cannot be edited.
- Accessibility: There is no password retrieval system and no autocomplete for tagging which may lead to spelling mistakes and people not being notified.

## Analysis & Specification

From the interview we have identified several problems with UNSW Dreams and here attempt to express them as user requirements.

| User Story | User Acceptance Criteria |
|---|---|
| As a student, I want to have only my active channels in the sidebar so I can easily access information that is relevant to me. | - Only have channels a user is a member of in the sidebar<br>- Have a search bar at the top of the side bar for user to search for channels they would like to join<br>- User has the option to hide channels in the sidebar |
| As a student with different courses using different platforms, I want to only check one place for notifications so that I don't stress about missing important notifications. | - If the user is tagged an email is sent to the user to notify them<br>- If a message is pinned in ay channel the user is a member in, they are notified by email |
| As a student with many passwords to manage, I want to have a way to get to the site if I forget my password so that I don't miss out on important information. | Scenario: user forgot password<br>Given: user has entered a valid email<br>When: user selects the 'forgot my password' link<br>Then: send the user an email<br>When: user navigates to link and changes their password<br>Then: redirect user to login page<br>When: user enters correct email and new password<br>Then: continue with normal log in |

**Use Case:** Organise user's channels
**Goal in Context:** User only has channels they are members of in the sidebar and can customise what is visible by joining and hiding channels
**Scope:** UNSW Dreams, channels the user is not a member of
**Level:** Subfunction

**Preconditions:** User has successfully logged into their account
**Success End Condition:** User joins a channel and has it visible in the sidebar with the option of hiding
**Failed End Condition:** User is not a member of a channel
**Primary Actor:** UNSW Dreams user
**Trigger:** User accesses UNSW Dreams


**Validation**

Interviewees were contacted again and shown the generated use cases and asked if they adequately addressed the problems identified throughout the previous interview. Responses are recorded below.

a. Being able to organise your channels like this will definitely make the site easier to navigate and it would mean that other people will need to know the name of a channel to join so there would be more privacy for channels. Though this doesn't really address security I think they're improvements that make sense.

   Also being able to see notifications in my email would

b. Yes, that would improve using the site a lot. It would make it a lot easier to only see stuff that was relevant to me so I wouldn't get overwhelmed and can find relevant information from active channels a lot quicker.

Interface Design

Specify the HTTP endpoints that would be need to be constructed to solve the problem in this way

| Name and description | HTTP method | Data Types | Exceptions |
|---|---|---|---|
| channels/search/v1 <br><br> given a query string, return a list of channel names that contain the string | GET | Parameters: (token, query_str) <br><br> Return Type: {channels} | InputError when any of: <br> • Query_str contains more than 20 characters |
| channel/hide/v1 <br><br> given a channel that the user is a part of, changes the channel to hidden | PUT | Parameters: (token, channel_id) <br><br> Return Type: {} | InputError when any of: <br> • Channel ID is not a valid channel <br><br> AccessError when any of: <br> • Authorised user isot a member of channel with channel_id |
| channel/show/v1 <br><br> given a channel that the user is a part of, | PUT | Parameters: (token, channel_id) <br><br> Return Type: | InputError when any of: <br> • Channel ID is not a valid channel |

| changes the channel status to showing | | {} | AccessError when any of: <br> • Authorised user isot a member of channel with channel_id |
|---|---|---|---|
| channels/listvisible/v1 <br><br> provide a list of all channels (and their associated details) that the authorised user is part of | GET | Parameters: (token) <br><br> Return Type: {channels} | N/A |

**Conceptual Modelling**

A state diagram is included below to illustrate how the system will react to user actions.