

Boost Planning PDF

Elicitation:

Interview 1: Oliver Utteridge (outteridge20@gmail.com)

Interview began with a brief explanation of UNSW Memes

Question: Based on what you've heard, do you use any software similar to UNSW Memes?

Yeah, for school I use Microsoft Teams a lot, but when I'm gaming or talking to friends it's mainly Discord.

Question: Currently UNSW Memes only supports text-based communication. Would you benefit from another form of contact in channels and DMs?

Well, if it's not anything too important I'll usually type in a message and send that to someone, but I call people all the time. For example, in group projects or even when I'm just talking to my friends on our own server we'll be on a group call.

Solution: Allow users to create group calls in private channels that can be joined by members of that channel only.

Question: UNSW Memes currently offers two main types of permissions: channel owners and regular users. Would this be suitable for your needs, or would another type of permission be needed?

Based on what I understand I think that's a little limiting. I can definitely see myself starting a server where I would want some users to have certain owner permissions but not all of them, especially with inviting other people. Me and my friends have our own server where everyone can change its settings and properties but not everyone can invite others. That's another reason why I like Discord. It lets you to create roles with customised permissions, like a moderator who can delete messages or invite people but can't ban them. Sometimes if it's just one person's permissions I want to edit, I don't bother making a new role and just edit their permissions directly, which is also quite useful.

Solution: Allow channel owners to create custom roles that have certain preset permissions and assign people to these roles. Also allow owners to individually modify people's permissions. Most importantly, owners should be able to customise who can invite other users, who can edit the channel's properties and who can ban other users.

Question: Would it be important for you to be able to attach things to your messages?

Yeah, I send files and pictures to others on Teams and Discord so that would be a nice feature to have if you don't have that already. I wouldn't say it's super important though, because I usually just use google drive anyway, especially if it's a big file.

Solution: Allow users to attach files and pictures to messages in DMs and channels.

Question: UNSW Memes currently does not have a system to display seen or unseen messages. Would this be a downside for you?

That sounds like a downside. If it's schoolwork I'm sure I could pretty easily lose an important message if lots are being sent to me so yeah, it would be good to have some kind of a seen/unseen feature. Oh and also to flag a message as unread, sometimes I can't be bothered to respond to messages straight away.

Solution: Have a simple visual indication of whether a message in a DM or channel has been seen or unseen, such as a blue circle next to unseen messages. Also allow users to toggle whether a message has been seen or unseen.

Question: Are there any other universal features you would like to see with Channels?

Um... maybe a mute feature? If it's a busy channel I don't want my feed to be spammed with messages so it would be nice to be able to disable any notifications or anything until I unmute it.

Solution: Allow users to mute channels and DMs they are a member of, which will prevent users from receiving notification when a new message is sent or when they are tagged.

Interview 2: Demarcus Price (dem.pricey@gmail.com)

Interview began with a brief explanation of UNSW Memes

Question: Based on what you've heard, do you use any software similar to UNSW Memes?

Yes, I primarily use Microsoft Teams for school, and I use Discord at home when I'm chatting with friends or playing games.

Question: Currently, UNSW Memes only supports text-based communication. Would you benefit from another form of contact in channels and DMs?

Given that you haven't mentioned calling as a feature a part of Memes, I believe that it is a crucial feature that needs to be added. Also being able to send GIFS or stickers in messages would be cool, kinda like how Instagram works. Also having sub-channels would be a cool feature as well, similar to the discord platform

Solution: Add a calling feature to channels and implement GIF sending ability in message send

Question: UNSW Memes currently offers two main types of permissions: channel owners and regular users. Would this be suitable for your needs, or would another type of permission be needed?

I think customising permissions through a menu similar to how Discord has it would be quite useful. Obviously this would only really benefit from adding some more permissions such as who can invite, who can delete messages, who can send messages, i feel this would also benefit more if in channels there existed sub channels.

Solution: Add more user permissions such as a user that can edit and delete anyone's message in specified channel. Renaming channel, etc. Create an easy-access drop-down menu for anyone with permission to access it to alter permissions

Question: Would it be important for you to be able to attach things to your messages?

Yes, sending files is really important feature of messaging services, so missing out on it I think is quite a crucial thing. Also attaching things such as GIFS or stickers i think would be quite beneficial in allowing people to communicate in more ways with their friends or peers

Solution: Edit message sending feature to include ability to upload files and store them in the database

Question: UNSW Memes currently does not have a system to display seen or unseen messages. Would this be a downside for you?

Yes, I think being able to at least have a seen feature for messages that can be toggled on and off is quite important when communicating so you know what you have read and acted upon or the opposite. So overall that would be quite a good feature to provide users with the choice of doing.

Also, i think memes would benefit a lot from having a friend system, that way you can easily DM people you are friends with and make it so that you can only invite people you are friends with.

Solution: Make changes so that when the message appears on the screen, mark as read.

Question: Are there any other universal features you would like to see with Channels?

Sending audible notification pings when messages are sent would be useful and also being able to mute that would be a useful feature, that way when messages are going off or calls are happening you aren't pinged about it if you don't want to be.

Solution: Add on to notifications feature to ping with noise when not only tagged but also when a message is sent in a channel they belong to.

User Stories:

User Story	User Acceptance Criteria
As a student I want to be able to send files in a channel so that I can share notes and homework with my peers	<ul style="list-style-type: none">• There is a file icon in the message bar• When clicked allows the user to choose any file from their system• Max file length is 8MB• Can drag and drop files into messages• Users can download file from message
As a user of Memes, I want to be able to know whether or not I have read a message, I also want to know who has and hasn't read my message, that I can make sure to reply to a message and know who is active	<ul style="list-style-type: none">• Have a read symbol at the bottom of the last read message• Mark a message as unread, removes the read symbol until read again later• Clicking on a message shows who has read it and who hasn't• Shows who has read it by displaying their user profile image• Can turn on or turn off displaying messages as read with the correct permission
As a channel owner in Memes, I want to be able to assign people custom roles in my channel, so that I can customise everyone's permissions.	<ul style="list-style-type: none">• There is a Customise Roles button that is only visible to channel owners.• Clicking this leads to a page allowing owners to name a role, select what permissions it has and assign people to that role.• Only channel owners can create roles.• Multiple roles can be created.• Roles can be edited and reassigned to members.

Use Case: Indicate Unseen Messages

Goal in context: Although Memes users can send messages to others in channels or DMs, there is visual indication telling users which messages they have seen and which they haven't. This can lead to messages not being kept track of and never being seen at all if new messages come in.

Scope: The ability to send and receive messages is assumed to be black-box under design, this use case is concerned with keeping track of which received messages have been clicked on and read.

Preconditions: At least one message has been sent within the DM/channel in question.

Success end conditions: A visual indication appears on the channels or DMs that have not been read, such as a blue dot, indicating that this channel/DM has unseen messages. These unseen messages also have a dot displayed next to them, which disappears when the message is displayed on their screen. Users can also toggle which messages are seen and unseen by right-clicking a message and clicking "mark as unread" from a drop-down menu, which will lead to the blue dot being displayed again.

Failed end conditions: There is no way to discern which channel/dm has unread messages, and which messages within that have not yet been read.

Primary actor: All users of Memes

Trigger: Memes users receiving a message in a channel or DM they are a member of.

Use Case: Customise User Permissions

Goal in context: Currently Memes only offers two main types of permissions in channels: owner permissions and user permissions. Some target users have expressed a desire to customise people's individual permissions in channels that they own.

Scope: The functionality of any feature that a channel member may be granted access to by the owner (such as banning others, inviting others etc) are considered black-box under design: granting access to these features is what we are concerned with.

Preconditions: There is at least one owner and one other channel member. Only owners can edit permissions.

Success end conditions: Channel owners can create unique roles with certain associated permissions. They can then assign these roles to members of their channel. For example, an owner might create a 'director' role, who can edit other people's messages but cannot invite others, which may be assigned to 1+ people.

Failed end conditions: There remain only two permission types in channels. Owners have no flexibility regarding which members have more/less permissions than others.

Primary actor: Channel owners

Trigger: Channel owners clicking a 'create role' button in their channel.

Validations

From the previous comments from the interview, use cases were created. The following descriptions below are the remade and validated solutions which were shown to the interviewed people.

Reply 1: Oliver Utteridge (outteridge20@gmail.com)

First Solution: *Allow users to create group calls in private channels that can be joined by members of that channel only.*

Description to solution:

1. Ability to create a server to do a group call
2. Group call members are only from within that channel members

Comments from Oliver: Spot on, and I would like to add that we can always join the server call, not like what's app group call, where one have to first create the group call first, and joining it is just by pressing the group call button. That's it...

From Oliver's answer we added the description to our solution as follows:

1. Create a button which enabled us to join a server call
2. Channel members are the only ones who can enter
3. Anyone can join instantly without waiting for someone to start the call

After showing the revamped solution to Oliver, he said he was satisfied and had no further comments.

Second Solution: *Allow channel owners to create custom roles that have certain preset permissions and assign people to these roles. Also allow owners to individually modify people's permissions. Most importantly, owners should be able to customise who can invite other users, who can edit the channel's properties and who can ban other users.*

Description to solution:

1. Give the ability to owners to creates roles within a channel
2. Roles are created specifically by the owners and have special permission
3. Special permissions are a subset of a channel owner's permission, such as inviting people
4. Only owner can change the specific permission of members with roles.

Comments from Oliver: your description fits what I had in mind, but I want to specifically add, that members with special roles should also have the ability to give roles, not only owners.

From the comment, we changed one description to our solution:

Give the ability to owners to creates roles within a channel

1. Roles are created specifically by the owners and have special permission
2. Special permissions are a subset of a channel owner's permission, such as inviting people
3. Channel owner can edit every member's role, and members with special permission also have the subset of that ability to give certain roles limited to their permission.

After showing the new description Oliver had no conflicting comments and said that it was what he had in mind.

Third Solution: *Allow users to attach files and pictures to messages in DMs and channels.*

Description to solution:

1. Allow members with permission to send files and pictures to Dms
2. If file and picture size are too big, tell the user if the app would like to send a compressed file

Oliver had no conflicting comments and agreed to this solution was what he wanted, although no he wanted to have no limit in file and picture sharing.

Fourth Solution: *Have a simple visual indication of whether a message in a DM or channel has been seen or unseen, such as a blue circle next to unseen messages. Also allow users to toggle whether a message has been seen or unseen.*

1. Users are able to set their setting to automatically not trigger the “seen message” indicator
2. If user has it on, user has the ability to unseen a message.

Comments from Oliver: the first line was not what I had in mind, but that also works.

Fifth Solution: *Allow users to mute channels and DMs they are a member of, which will prevent users from receiving notification when a new message is sent or when they are tagged.*

Description to solution:

1. Create a button to toggle notifications
2. Give option on how long to disable notification or always disable them

Oliver did not give any conflicting comments and said it was what he wanted

Reply 2: Demarcus Price (dem.pricey@gmail.com)

Note: for this reply the solution given to the first interviewee was not given to this user, thus some solutions might be similar.

First Solution: *Add a calling feature to channels and implement GIF sending ability in message send*

Description to solution:

1. Enable sending GIF as messages
2. Enable Group call

Demarcus said that this is what he meant and had no conflicting comments.

Second Solution: *Add more user permissions such as a user that can edit and delete anyone's message in a specified channel. Renaming channel, etc. Create an easy-access drop-down menu for anyone with permission to access it to alter permissions*

Description to solution:

1. Enable certain users, to edit and delete message
2. For ethical reasons, the edited and deleted message would have a mark that tells it have been edited/deleted
3. Add drop-down button for anyone with permission to change channel name

Comments from Demarcus: I did not think of the ethical reasons at first, but this is what i had in mind.

Third Solution: *Edit message sending feature to include ability to upload files and store them in the database*

Description to solution:

1. Add an option to send files

Demarcus said it is what he had in mind.

Fourth Solution: Make changes so that when the message appears on the screen, mark as read.

Description to solution:

1. Add a mark that to the message to indicate it was seen by another user

Demarcus had no comments on this solution and said it was what he had in mind

Fifth Solution: *Add on to notifications feature to ping with noise when not only tagged but also when a message is sent in a channel they belong to.*

Description to solution:

1. Enable notifications to give off a noise
2. Notification noise are set whenever a user is tagged or a message is sent to a channel they are a member of

Demarcus added comment where it would be nicer if the sound it gives for a tag and a message in channel and a Dm is different.

We changed the solution as follows:

1. Enable notification to give a specific noise for a specific thing (message in channel/ Dm / tag)
2. Notification noise are always sent whenever a notification is given

After Demarcus reviewed it again, he stated that this is what he had in mind

Interface Design:

Name & Description	HTTP Method	Data Types	Exceptions
<p>channel/setDirector/v1 Make user with user ID uId a director of a channel</p> <p>Director of a channel can edit, remove, pin and unpin message, Invite other user to the channel</p>	POST	<p>Body Parameters: { channelId, uId }</p> <p>Return type if no error: { }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none">• channelId does not refer to a valid channel• uId does not refer to a valid user• uId refers to a user who is not a member of the channel• uId refers to a user who is already an director of the channel <p>403 Error when:</p> <ul style="list-style-type: none">• channelId is valid and the authorised user does not have owner permissions in the channel

<p>channel/setAdministrator/v1</p> <p>Make user with user ID uId a administrator of a channel</p> <p>Administrator of a channel can remove message, Invite other user to the channel</p>	POST	<p>Body Parameters: { channelId, uId }</p> <p>Return type if no error: { }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> • channelId does not refer to a valid channel • uId does not refer to a valid user • uId refers to a user who is not a member of the channel • uId refers to a user who is already an of Administrator the channel <p>403 Error when:</p> <ul style="list-style-type: none"> • channelId is valid and the authorized user does not have owner permissions in the channel
<p>channel/muteChannel/v1</p> <p>After muting a channel, this function will prevent users from receiving notification when a new message is sent or when they are tagged</p>		<p>Body Parameters: { channelId, isMuted: boolean }</p> <p>Return type if no error: { }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> • channelId does not refer to a valid channel <p>403 Error when:</p> <ul style="list-style-type: none"> • channelId is valid and the authorized user does not have owner permissions in the channel

<p>dm/muteDm/v1</p> <p>After muting a dm, this function will prevent users from receiving notification when a new message is sent or when they are tagged</p>		<p>Body Parameters: <code>{dmId, isMuted:boolean }</code></p> <p>Return type if no error: <code>{}</code></p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> <code>dmId</code> does not refer to a valid channel <p>403 Error when:</p> <ul style="list-style-type: none"> <code>dmId</code> is valid and the authorized user does not have owner permissions in the channel
<p>channel/newMessage/v1</p> <p>If user doesn't mute the channel, When there are new messages in the channel after the user's last call to the function <code>channel/messages/v3</code>, return these new messages. When the amount of unread message over 100, return the latest 100 messages. And send notifications (to ping with noise if possible) when a new message is sent in a channel they belong to.</p>	GET	<p>Body Parameters: <code>{ channelId, }</code></p> <p>Return type if no error: <code>{message[]}</code></p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> <code>channelId</code> does not refer to a valid channel <p>403 Error when:</p> <ul style="list-style-type: none"> <code>channelId</code> is valid and the authorized user is not member in this channel

<p>dm/newMessage/v1</p> <p>If user doesn't mute the dm, When there are new messages in the dm after the user's last call the function dm/messages/v2, return these new messages. When the amount of unread message over 100, return the latest 100 messages. And send notifications (to ping with noise if possible) when a new message is sent in a dm they belong to.</p>	GET	<p>Body Parameters: { dmId, }</p> <p>Return type if no error: {message[]}</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> dmId does not refer to a valid channel <p>403 Error when:</p> <ul style="list-style-type: none"> dmId is valid and the authorized user is not member in this dm
<p>channel/permission/change/v1</p> <p>Given a user by their uID, sets their permissions in a channel to new permissions described by role</p>	POST	<p>Body Parameters: { channelId, uId , role }</p> <p>Return type if no error: { }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> channelId does not refer to a valid channel uId does not refer to a valid user uId refers to a user who is not a member of the channel uId refers to a user who is already is the role(diretor, Administrator) of the channel role does not refer to a valid role(diretor, Administrator)

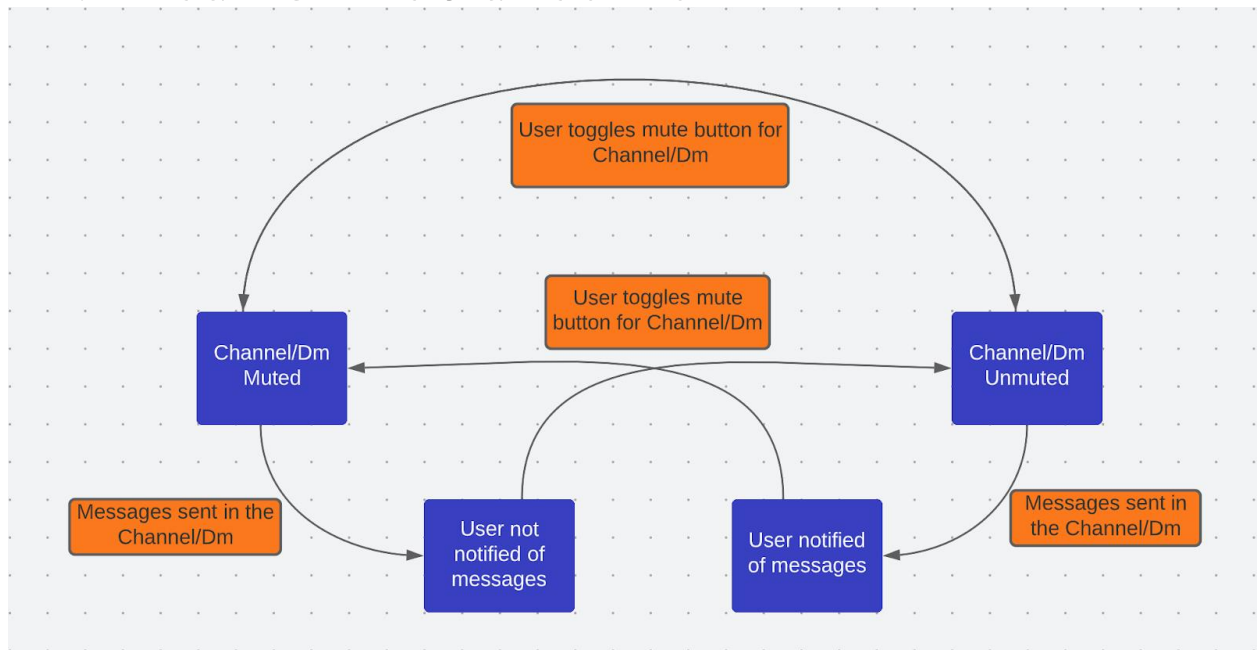
			<p>403 Error when:</p> <ul style="list-style-type: none"> channelId is valid and the authorised user doesn't have higher permission to user which uId refer to
<p>message/sendPictureGif/v1</p> <p>Sends a Picture or Gif from the authorised user to the channel specified by channelId. Each Picture should have its own unique ID</p>	Post	<p>Body Parameters: { channelId, imgUrl }</p> <p>Return type if no error: { pictureId }</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> channelId does not refer to a valid channel Image size less than 10mb <p>403 Error when any of:</p> <ul style="list-style-type: none"> channelId is valid and the authorised user is not a member of the channel

<p>message/sendPictureGifDm/v1</p> <p>Sends a Picture or Gif from the authorised user to the DM specified by dmId. Each Picture should have its own unique ID</p>	POST	<p>Body Parameters: { dmId, imgUrl}</p> <p>Return type if no error: { pictureId}</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> channelId does not refer to a valid channel Image size less than 10mb <p>403 Error when any of:</p> <ul style="list-style-type: none"> channelId is valid and the authorised user is not a member of the channel
<p>channel/startCall/v1</p> <p>Start a call in a channel, invite at least one other user in this channel. Any user can join the call whenever they want</p>		<p>Body Parameters: { channelId, uId[] }</p> <p>Return type if no error: {channelCallId}</p>	<p>400 Error when any of:</p> <ul style="list-style-type: none"> channelId does not refer to a valid channel uId does not refer to a valid user uId refers to a user who is not a member of the channel uId refers to a user who is already in call Length of uId[] not between 1 and 20

channel/joinCall/v1 Join a call in channel		Body Parameters: { channelId, channelCallId} Return type if no error: {}	400 Error when any of: <ul style="list-style-type: none">• channelId does not refer to a valid channel• channelCallId does not refer to a valid call
---	--	--	--

Conceptual Modelling:

1. Mute and Unmute Channels/Dms



2. Channels/Dms notification sent as audible ping

