



FLO EdTech Sandbox Series: ***Mattermost***

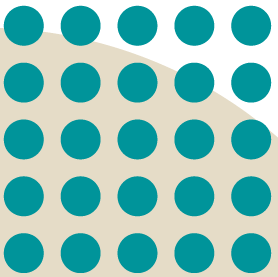
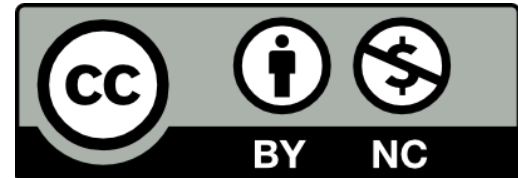
for Building Learning Communities

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British Columbia Institute of Technology

Ian_Linkletter@bcit.ca

September 13, 2023



Land Acknowledgment

I would like to acknowledge that I live and work on the traditional, ancestral, and unceded territory of the Coast Salish Nations of Skwxwú7mesh (Squamish), sə'íl-wə-taʔt (Tseil-Waututh), and xwməθkwəyəm (Musqueam).



Session Overview

- Presentation
- Signing Up for Mattermost
- Mattermost Scavenger Hunt
- Mattermost Conversations
- Continuing Conversation in Zoom
- Evaluating Mattermost Together



Mattermost is "Team Chat"

If you haven't heard of Mattermost, how about:

- Slack?
- Microsoft Teams?
- Zoom Chat?
- Discord?
- Rocket.Chat?
- Workplace by Meta?
- Google Workplace?



What is Mattermost?

- Mattermost is an open-source communication tool that facilitates collaboration in a chat environment.
- It's officially supported at UBC and TRU, and available to other BC PSIs through the OpenETC.
- I led the Mattermost pilot at UBC and was involved with its selection and evaluation.



Team Chat Features

1. Channels (public and private)
2. Direct messages (1-to-1 and group)
3. File sharing (upload/preview files in chat)
4. Notifications (push, web, email, or off)
5. Search (keywords, hashtags, by date)
6. Threaded conversations
7. Rich text formatting



Team Chat Features (continued)

- Reactions and emoji
- Customizable appearance
- User profiles (picture, display name, and status)
- Apps and mobile compatibility
- Pinning and bookmarking
- Accessible! Better be, anyway... Mattermost is.





Maybe it's easier if I show you...

(short demo time)



What makes Mattermost different?

- Open-source vs. vendor controlled
- Self-hosted vs. corporate cloud
- Relatively simple interface
- No surprise upgrades
- Privacy risk diminished
- Hosted on the OpenETC



OpenETC

BC's Open EdTech Collaborative

<https://opened.ca>



Art by Bryan Mathers for the OpenETC

What is the OpenETC?

“The OpenETC is a community of educators, technologists, and designers sharing their expertise to foster and support open infrastructure for the BC post-secondary sector.”

How is the OpenETC relevant?

“... open education is not limited to just open educational resources. It also draws upon **open technologies** that facilitate collaborative, flexible learning and the open sharing of teaching practices that empower educators to benefit from the best ideas of their colleagues.”

[Cape Town Open Education Declaration](#), 2007

What does the OpenETC have to offer?

- Three platforms: Mattermost, WordPress, H5P
- **Complements existing infrastructure, doesn't replace it**
- Key differentiators: Self-serve, available to students, cross-institutional
- Most importantly: Learning with a broader community



Mattermost[®]



WORDPRESS

Members (14/25 PSIs in BC)



BCIT committee endorsement

On May 26th, 2022, the BCIT Educational Technology and Learning Design Committee voted to endorse the OpenETC for open education purposes.



Art by Bryan Mathers for the OpenETC

Mattermost is:

- Hosted in BC by BCNET
- Financial support from BCcampus
- Server administration by TRU

Why a shared approach?

- **Complements existing infrastructure, doesn't replace it**
- Promotes digital literacy and connected learning experiences
- Cross-institution collaboration and knowledge sharing
- A counter-balance to processes which favour commercial solutions
- Platform cooperativism helps us identify common needs in BC
- Participation in a growing cooperative of BC Higher Education institutions



Art by Bryan Mathers for the OpenETC



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What are some benefits of open-source technology?

Let's talk for a few minutes.



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UBC Mattermost Evaluation Report

Available online as an open resource:

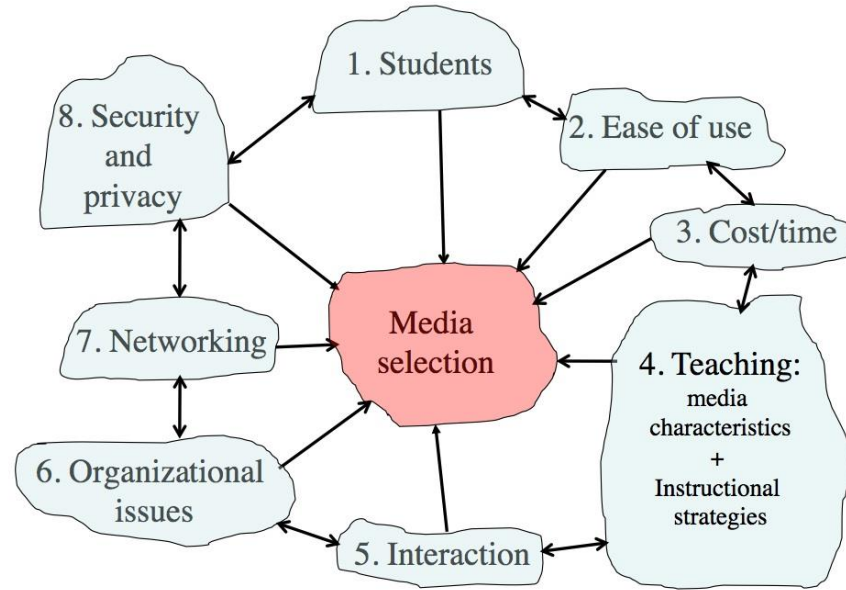
<https://lthub.ubc.ca/files/2021/05/mattermost-report.pdf>

Or Google: UBC Mattermost Report

How did UBC choose Mattermost?

- UBC Faculty of Education collaborated with instructors on chat case studies
- Worked with UBC Learning Technology Hub to generate primary and secondary requirements
- Adapted Bates and Poole's SECTIONS framework into an evaluation rubric
- Environmental scan, testing of finalist candidates, user testing
- Pilot launched in 2016, evaluation took place in 2017, and it became an officially supported LT since 2018





From: *Teaching in a Digital Age* open textbook by Dr. Tony Bates



**S**

STUDENTS—What do you know about the kinds of students you are trying to reach, such as demographics, access to technology, and learning styles?

**E**

EASE OF USE—How easy and reliable is the medium or technology for the instructor and learner to use?

**C**

COSTS—How much does this technology cost to design, deliver, and maintain the course?

**T**

TEACHING FUNCTIONS—What are the educational affordances of the medium, that is, how is it good and not so good for teaching?

**I**

INTERACTION—To what extent does the medium provide interactivity between the learner and learning materials, between learner and expert, and between learners?

**O**

ORGANIZATIONAL ISSUES—Does the institution support this technology?

**N**


NETWORKING—Does the medium provide opportunities to network outside the course with subject experts and others in the community?

**S**

SECURITY AND PRIVACY—Is this a safe technology for the instructor and students to use?



Image: Sheila Jagannathan



From: *Teaching in a Digital Age*
open textbook by Dr. Tony Bates



Observations from a technologist

Community is essential in supporting collaborative learning and discourse.

A sense of community can contribute to perceived learning.

Perceived benefits to learning are most measurable when conducting a pilot evaluation, because you can simply *ask students*.



UBC Pilot Evaluation Outcomes

Using pilot outcomes from...

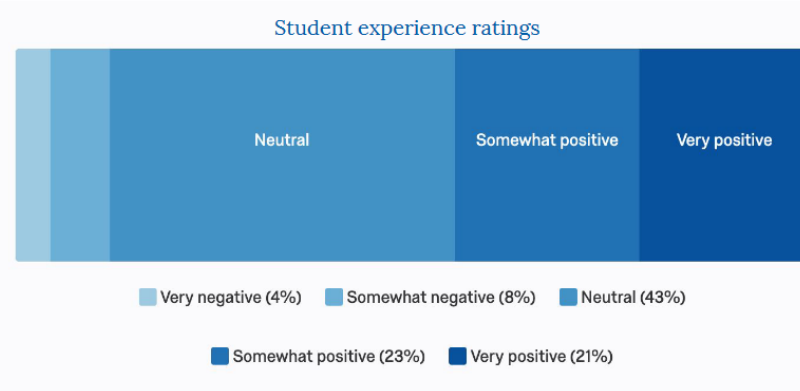


...the evaluation team found:



Most students rated their overall experience as neutral or positive.

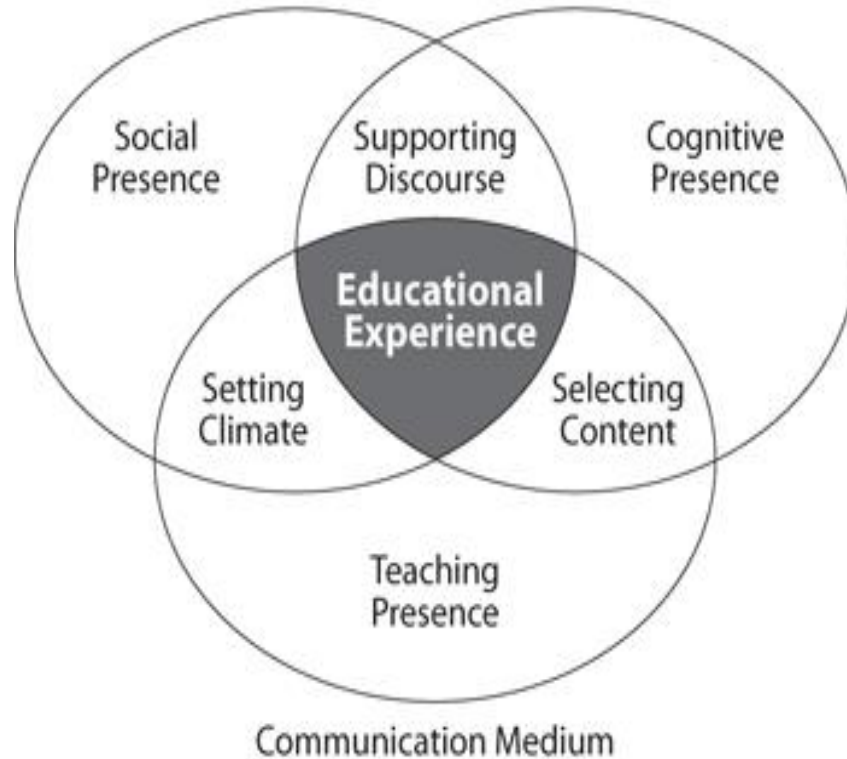
Students & instructors shared pros & cons of the tool that resulted in the following recommendations for maximizing pedagogical effectiveness of Mattermost.



Source: UBC Pilot Evaluation Outcomes
<https://bit.ly/mattermostrecs>

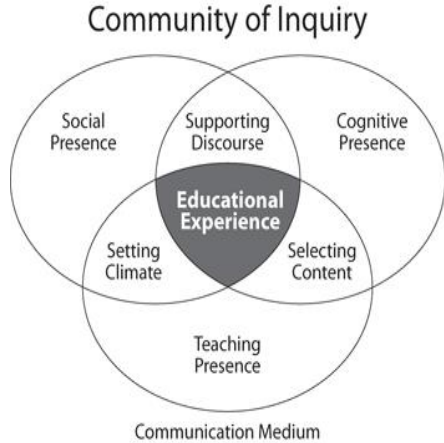


Community of Inquiry



Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education model. *The Internet and Higher Education*, 2(2-3), 87-105.



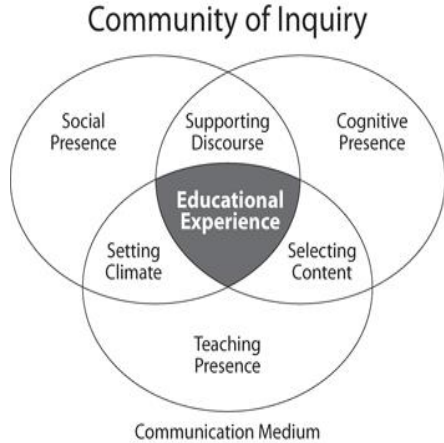


Social Presence is “the ability of participants to identify with the community (e.g., course of study), communicate purposefully in a trusting environment, and develop inter-personal relationships by way of projecting their individual personalities” (Garrison, 2009, p. 352).

More info: <https://coi.athabasca.ca/coi-model/>

Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education model. *The Internet and Higher Education*, 2(2-3), 87-105.



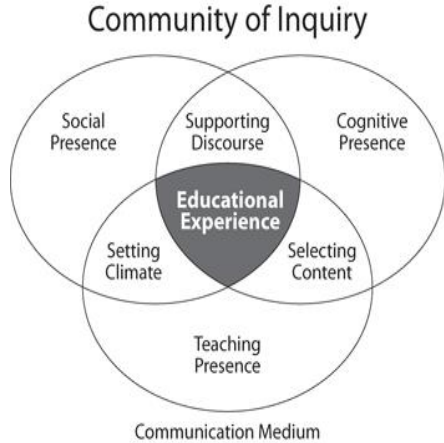


Teaching Presence is "the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes" (Anderson, Rourke, Garrison, & Archer, 2001).

More info: <https://coi.athabasca.ca/coi-model/>

Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education model. *The Internet and Higher Education*, 2(2-3), 87-105.





Cognitive Presence "is the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse" (Garrison, Anderson, & Archer, 2001).

More info: <https://coi.athabasca.ca/coi-model/>

Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education model. *The Internet and Higher Education*, 2(2-3), 87-105.





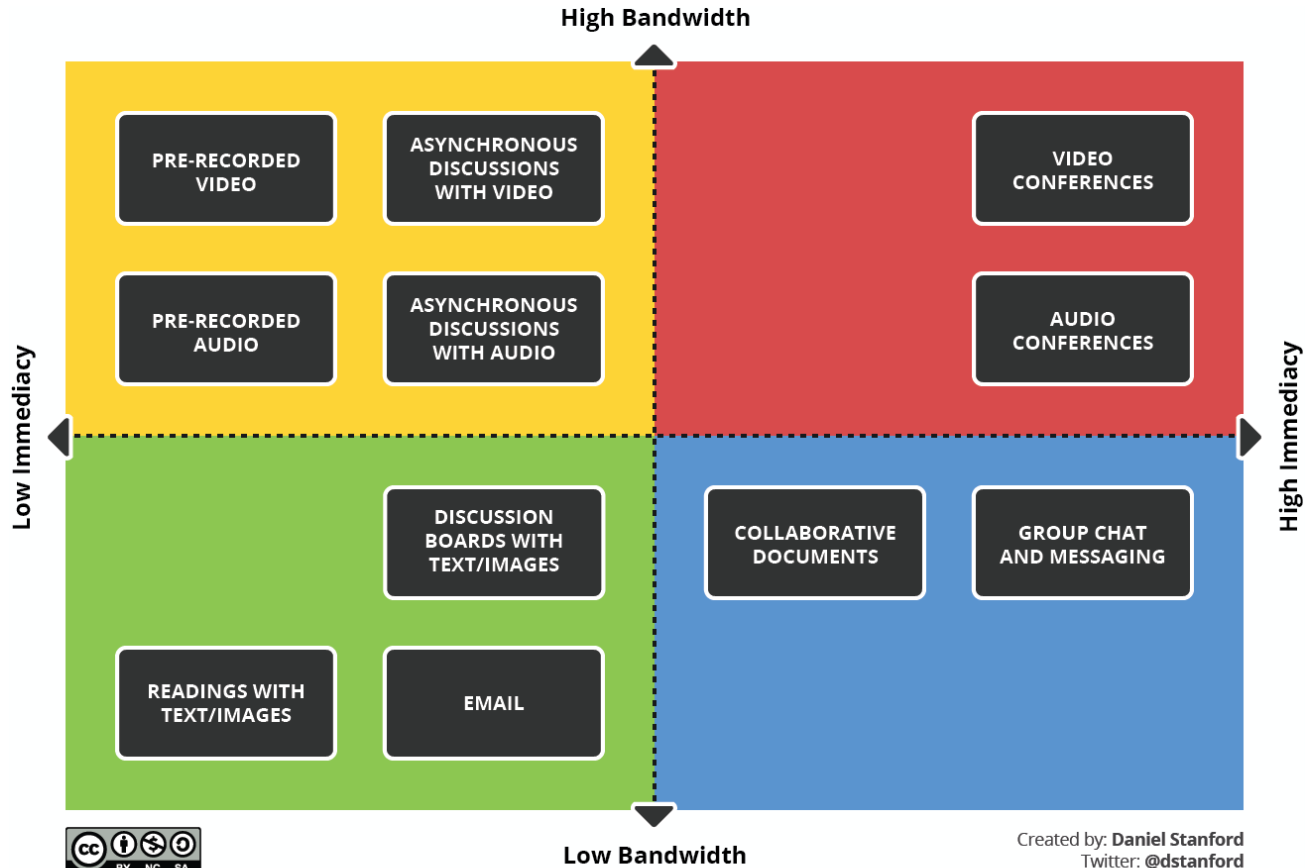
Hold that thought!

We'll be talking about the
Community of Inquiry model soon...
in Mattermost!

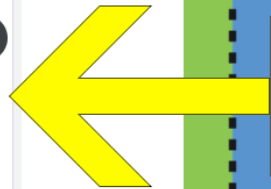
Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education model. *The Internet and Higher Education*, 2(2-3), 87-105.



Bandwidth Immediacy Matrix



Let's jam!



Add Stickers



Low Bandwidth

GROUP CHAT
AND MESSAGING

Mattermost

Slack

High Immediacy

Created by: Daniel Stanford
Twitter: @dstanford

[Link in ZOOM chat!](#)



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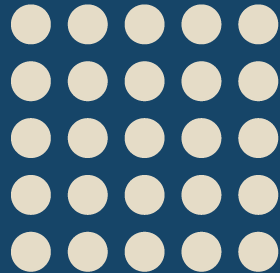
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<https://signup.linkletter.org>

(URL forwards to a long Mattermost invitation link)

Please sign up with your work email address.

Sign in if you already have an account.





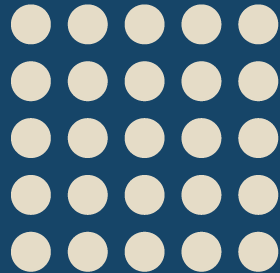
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<https://mattermost.com/download>

Mattermost is better with an app!

Windows, macOS, Linux, iOS, Android



Connecting your app

Let's connect to a server

Set up your first server to connect to your team's communication hub



Enter your server details

Server URL: <https://chat.opened.ca>

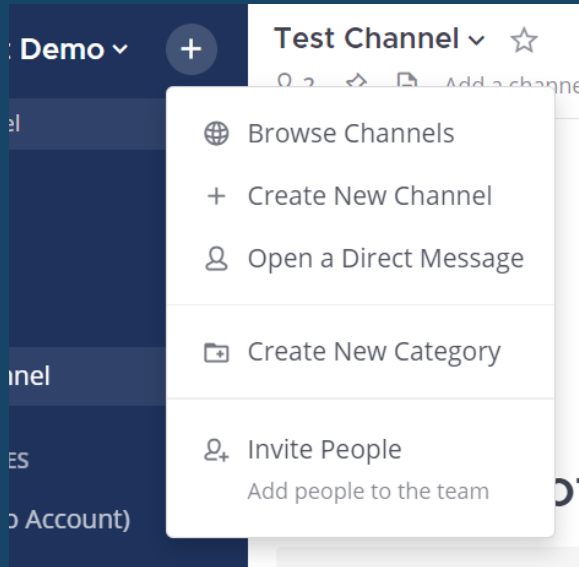
Server display name

The name that will be displayed in your server list

Connect





Very important instructions!



1. Click the + symbol next to the team name
2. Select Browse Channels
3. Join Introductions, Scavenger Hunt, and 4 Conversations





Let's set up Notification Settings (demo)





Mentions

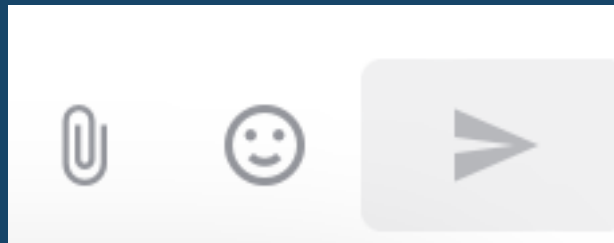
Saved

Settings

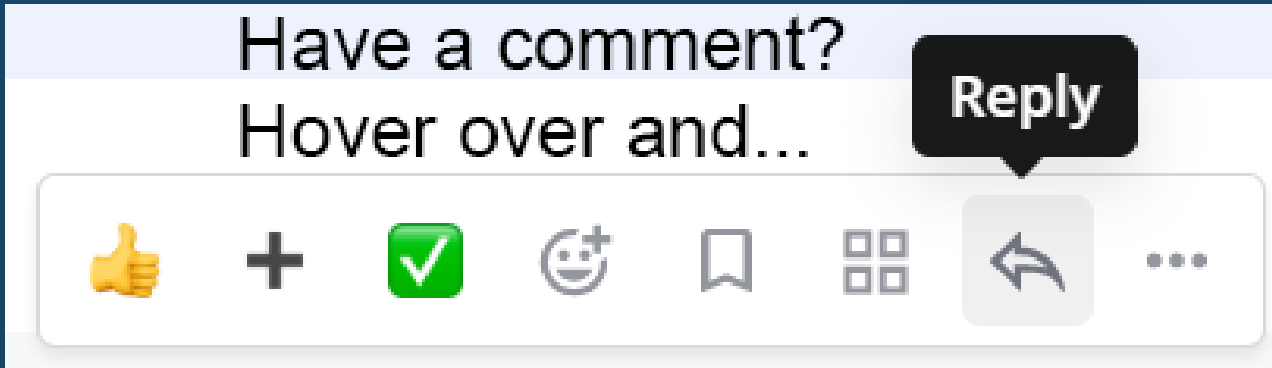
Status



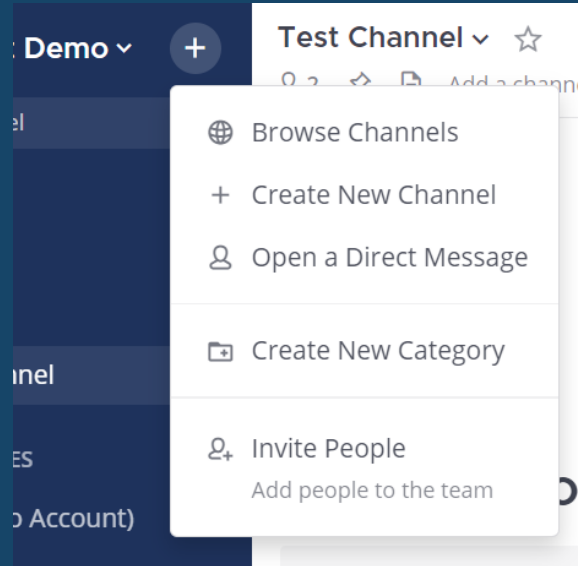
Attach. Emote. Send.



Use the Reply option to start a thread!



The + Menu: Browse, Create, DM



Text Formatting Bar

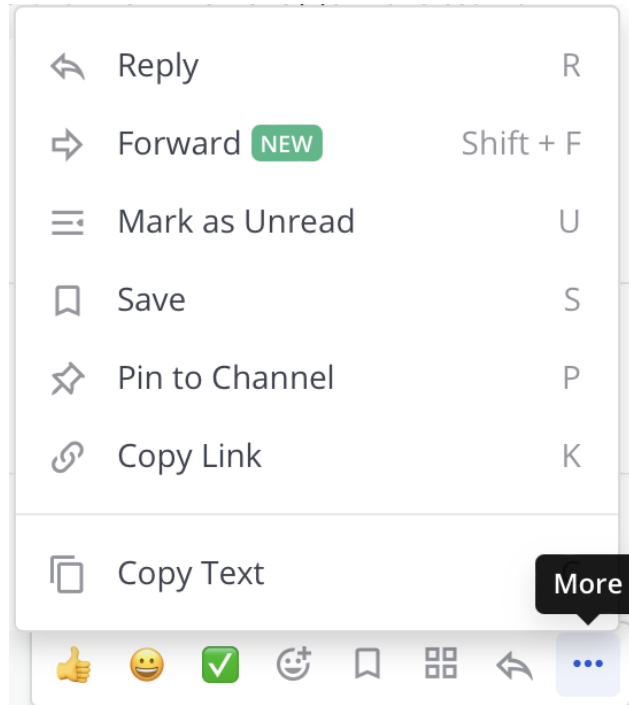
Write to Town Square



Post Interactions



... the dot-dot-dot menu ...

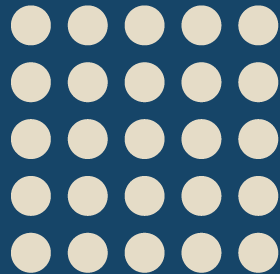




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Open the **Introductions** channel

<https://chat.opened.ca>





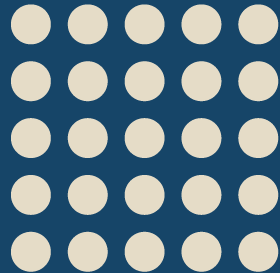
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We're in  Mattermost!

<https://chat.opened.ca>

Check **Channels**: Scavenger Hunt





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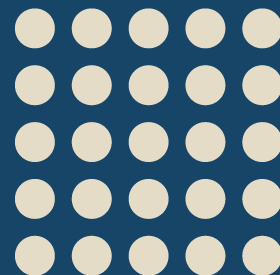
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Check **Channels**: Scavenger Hunt
Lost?

Search for #scavengerhunt





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We're back in 3, 2, 1...

Let's put our headsets back on.



Great scavenger hunt!

- Notification Settings
- Profile Settings
- Hashtags
- Upload Images/Files
- Direct Messages
- Creating a Channel
- Pinning Posts
- Adding Members
- Edit Channel Header
- Edit Channel Purpose





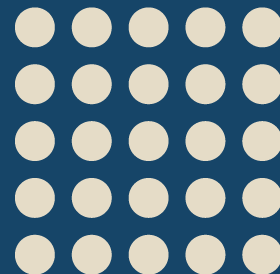
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<https://chat.opened.ca>

Check **Channels**: Conversation #1





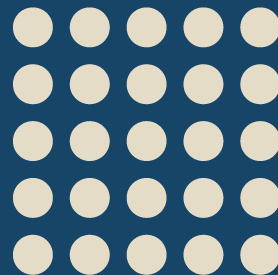
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<https://chat.opened.ca>

Check **Channels**: Conversation #2





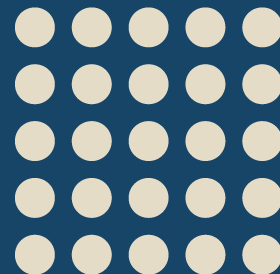
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Check **Channels**: Conversation #3



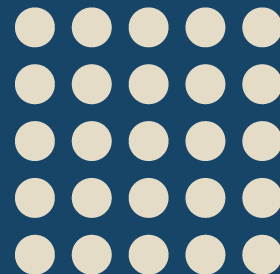


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We're in  Mattermost!

<https://chat.opened.ca>

Check **Channels**: Conversation #4





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We're back!

Let's put our headsets back on.

UBC Mattermost Recommendations

✓ Recommendations for Effective Course Use of Mattermost

1

Set up some channels for smaller groups (10-30) of students

Help students feel they can meaningfully contribute & interact without being drowned out or overwhelmed by the content of too many peers.

“liked the ability to connect & chat with classmates in real time”

BUT

“it's hard when 40 people are interacting”

Source: UBC Pilot Evaluation Outcomes
<https://bit.ly/mattermostrecs>



UBC Mattermost Recommendations

2

Organize content into clear channels & guide organization

Model & explain to students how best to use the different areas & features, so everyone has a shared understanding of effective communication.

“public discussions were very helpful in directing me”

BUT

“it's not easy to sort through & find what's relevant to me”

Source: UBC Pilot Evaluation Outcomes
<https://bit.ly/mattermostrecs>



UBC Mattermost Recommendations

3

Set explicit expectations around instructional team availability

Tell students how & when instructors & TAs will interact in real-time. When outside of real-time availability, indicate the length of delay.

“from the get-go, provide a schedule”

BECAUSE

“reasonable expectations of how [the instructor] sought to use it... allowed us to use the platform more, as we understood the norms around it”

Source: UBC Pilot Evaluation Outcomes

<https://bit.ly/mattermostrecs>



UBC Mattermost Recommendations

4 Integrate with or regularly prompt use from other course site(s)

Make chat feel like an integral & useful part of the course by incorporating it into the primary course site(s), when relevant.

“if I am busy working on my course home page - I don't want to leave”

& THIS

“made it more difficult to make the effort each week to check up”

Source: UBC Pilot Evaluation Outcomes
<https://bit.ly/mattermostrecs>



UBC Mattermost Recommendations

5

Set loose guidelines for student participation

Decrease student stress & potential disengagement by suggesting norms *other than* 24/7 participation, e.g., specific times for real-time discussions, highlighting one aspect weekly, bonus marks for x amount of participation.

“helpful for quick messages regarding smaller course questions or content”

BUT

“checking it on a frequent basis makes me feel overwhelmed”

Source: UBC Pilot Evaluation Outcomes
<https://bit.ly/mattermostrecs>



UBC Mattermost Recommendations

6

Emphasize private communication options for getting help

Highlight the private, 1-on-1 student-instructor/TA engagement opportunities, particularly in fully online courses.

“we could just have a quick dialogue connection & move forward”

& THIS

“made me more inclined to ask questions”

Source: UBC Pilot Evaluation Outcomes
<https://bit.ly/mattermostrecs>



UBC Mattermost Recommendations

7

Explain why Mattermost over other more established chat tools

Justify asking students to learn a new interface by explaining & educating on the importance of privacy in social media.

“goes a long way in fostering a sense of community, a struggle that is not easily overcome in online education”

BUT

“it was on yet another platform”

Source: UBC Pilot Evaluation Outcomes
<https://bit.ly/mattermostrecs>





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Roundtable



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Collaborative Evaluation



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