

# USING BACKCHANNELING TO SUPPLEMENT REAL-TIME LESSONS DURING EMERGENCY ONLINE LEARNING

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## INTRODUCTION

In Japan, during the opening months of the 2020 pandemic, it became clear to university administration, that regular in-person lessons could not start as usual at the beginning of April. The decision was made to delay the commencement of the semester by three weeks while an emergency online learning system was developed to enable both students and teachers to participate in online lessons from their own homes. The university decided to use the video conferencing software Zoom as the primary real-time lesson communication tool. As a part of my role in the Online Lesson Support Team for the university, I identified the need for backchanneling to support the real-time Zoom-based lessons to help teachers and students better communicate during this period of disruption. This paper describes the reasoning behind the selection of LINE OpenChat for this purpose and its use-cases.

## BACKCHANNELING

Backchanneling, also known as audience response systems, are methods of providing members of an audience with a means to communicate with the host without interrupting a lesson or presentation (Kay & LeSage, 2009). Backchanneling has mainly been used in language learning education to gather student feedback, check understanding, and for informal assessment during lessons (Reinders, 2014). It has also helped provide students with a tool for communicating with their teacher without the fear of interrupting the lesson and drawing the focus of the class. During a period of emergency online learning, it can also play a more direct role by providing an additional communication channel for students experiencing various issues during a lesson. Students can contact their teacher and receive assistance when their primary method of communication in the lesson (e.g. video conferencing software) is compromised.

In practical terms, the most common method for creating backchanneling opportunities would be to use a smartphone messaging application. This would allow students to directly communicate with the teacher outside of the video conferencing software to check understanding, provide feedback and even receive technical support.

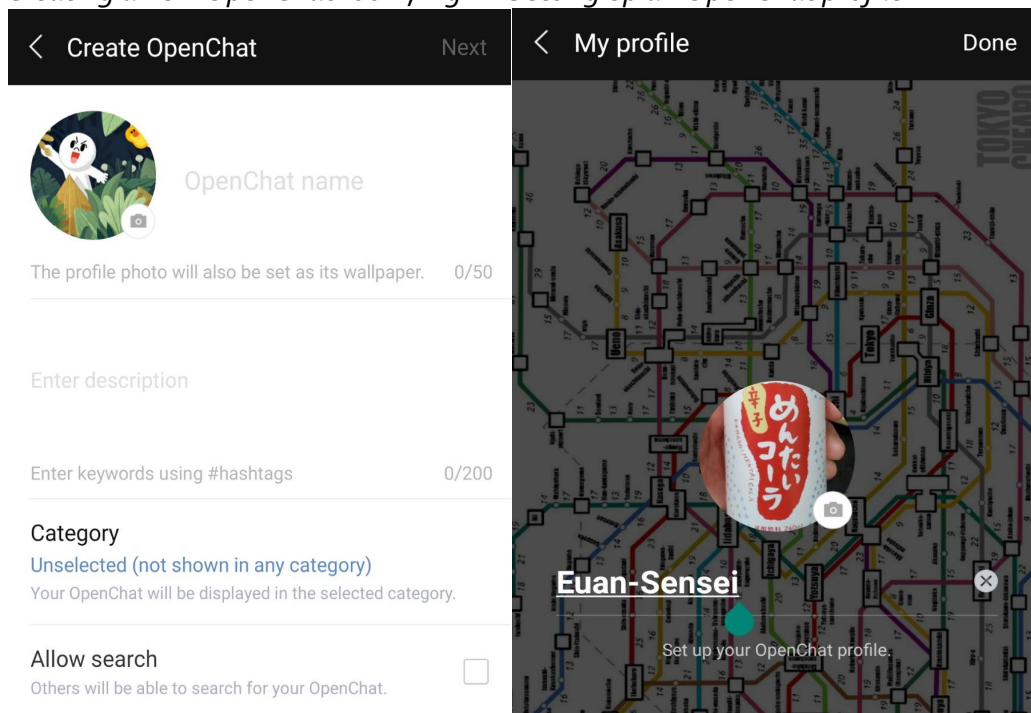
In Japan, the overwhelming popularity of LINE ("Number of monthly", 2020) would make it the most obvious candidate for creating a group chat room as an online lesson backchannel. However, there is also a need to consider user privacy and confidentiality when selecting a suitable real-time communication tool. Often messaging applications require the use of a single user profile, meaning that participation in an online group can also expose users to harassment and unwanted communication via direct messages from other members.

Ideally, the perfect solution for these circumstances would be a messaging application that has a group chat functionality that not only prevented direct messaging of group members, but also required the creation of new aliases. After some investigation, it was discovered that LINE had such capabilities. LINE OpenChat is a method of creating and participating in LINE group discussions without revealing a participant's LINE identification. After a period of evaluation and testing with co-workers, I decided to proceed with using OpenChat with both my first and second-year student classes.

## FEATURES & SETUP

The process for setting up OpenChat chat rooms was relatively simple. When I created the rooms for class use, I selected a name and profile photo for the room and deselected the option for "Allow search", which sets the room to only be accessible by those with the link (see Fig. 1). Links are available as URLs or QR codes and were shared with students via email and Google Classroom. The link directed students to a simple signup page which asked them to create a new pseudonym and select a profile picture (see Fig. 2). No other information was requested.

Fig. 1: Creating a new OpenChat room; Fig. 2: Setting up an OpenChat profile



For OpenChat room administrators, there are a variety of settings to control the postable content, including activating AI bots that can monitor the room to automatically delete specific words, and even provide computer-generated translations between languages (see Fig. 3). There is also an anti-phishing capability that automatically deletes any attempt by users to share their true LINE identification. Students who did wish to become direct LINE friends with other students were encouraged to use less public methods to directly connect with one another.

Fig. 3: AI bot features available for OpenChat room administrators



## Bots

Select a bot to use in the OpenChat. You can change the selected bot's settings at any time.

### Spam filter

Remove basic spam and obscenities. >

OFF

### Translator

Translate chat messages. >

OFF

The setup process for my classes went smoothly, with all students successfully joining their class's OpenChat room by the commencement of the first lesson, after having received the links in the classroom syllabus one week beforehand.

## USAGE SCENARIOS

Over the course of the first semester of emergency online learning, the OpenChat rooms were utilised in a variety of ways to aid in teaching and managing students:

### Polling Classes

The main method used to backchannel with the classes for feedback and comprehension checking was the use of OpenChat's poll system. LINE features the ability to poll chat rooms anonymously, which allowed my students to voice their opinions and provide honest answers without revealing their identities to the class or even to me. This proved invaluable in getting students to participate when they appeared much more reluctant to publicly participate in the Zoom video sessions. While Zoom also had this feature, the creation of Zoom polls was a much more involved process, whereas on LINE, it was possible to create new polls on the spot.

### Video Breakout Sessions

Many real-time activities facilitated the use of "breakout sessions" using Zoom's ability to divide students into smaller private video conferencing groups that were isolated from the main video conferencing session. During this time, the only method of communication from me was via a small notification message that would appear at the top of each student's screen for a few seconds. However, students were able to switch applications from Zoom to other collaborative classwork applications such as Google Docs or Google Slides. In these applications, Zoom notifications were not displayed, meaning students were completely isolated from communicating with me unless I entered each breakout session directly. OpenChat enabled continued communication with the class, enabling me to check understanding and provide additional information as students worked.

### **Video Conferencing Technical Issues**

During the period of emergency online learning, there were significant issues with the internet connections of both students and teachers. This resulted in occasions where students were unable to maintain a reliable connection to the real-time lessons. However, using OpenChat, my students were able to report connection issues to me immediately via their mobile phone cell-data. Similarly, there was a single occasion where my own internet connection became unstable and continuing the Zoom session became impossible. Fortunately, via OpenChat, I immediately informed my students that I would post the lesson's classwork on Google Classroom and asked them to use the remaining class time to work on these activities.

### **Classwork Reminders & Prompts**

In one instance, a lesson was divided into a real-time video lecture and a Google Classroom-based classwork activity. It was noted shortly after the end of the Zoom session that some students did not begin work on their online documents. A message was quickly sent to the OpenChat room reminding them that the lesson was not over and to work on the classwork activities immediately. This proved to be an effective method of keeping everyone on-task outside of video conferencing lessons.

### **CONCLUSION**

While video conferencing software can help to provide a continuation of real-time education during periods of emergency online learning, there still exists a need for a greater ability to check student understanding, gather feedback and provide informal assessment during these times. Backchanneling between teachers and students has the potential to provide a means to help address this issue. Using LINE OpenChat as a backchanneling tool helped provide this functionality, while also addressing the need for student privacy and helping them separate their online educational identities from their social ones.

### **REFERENCES**

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