



The

ASKING QUESTIONS

in ZOOM Online Lectures

Workbook

DM2601- Media Technology and Interaction Design

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Discover

Define

Develop

Deliver

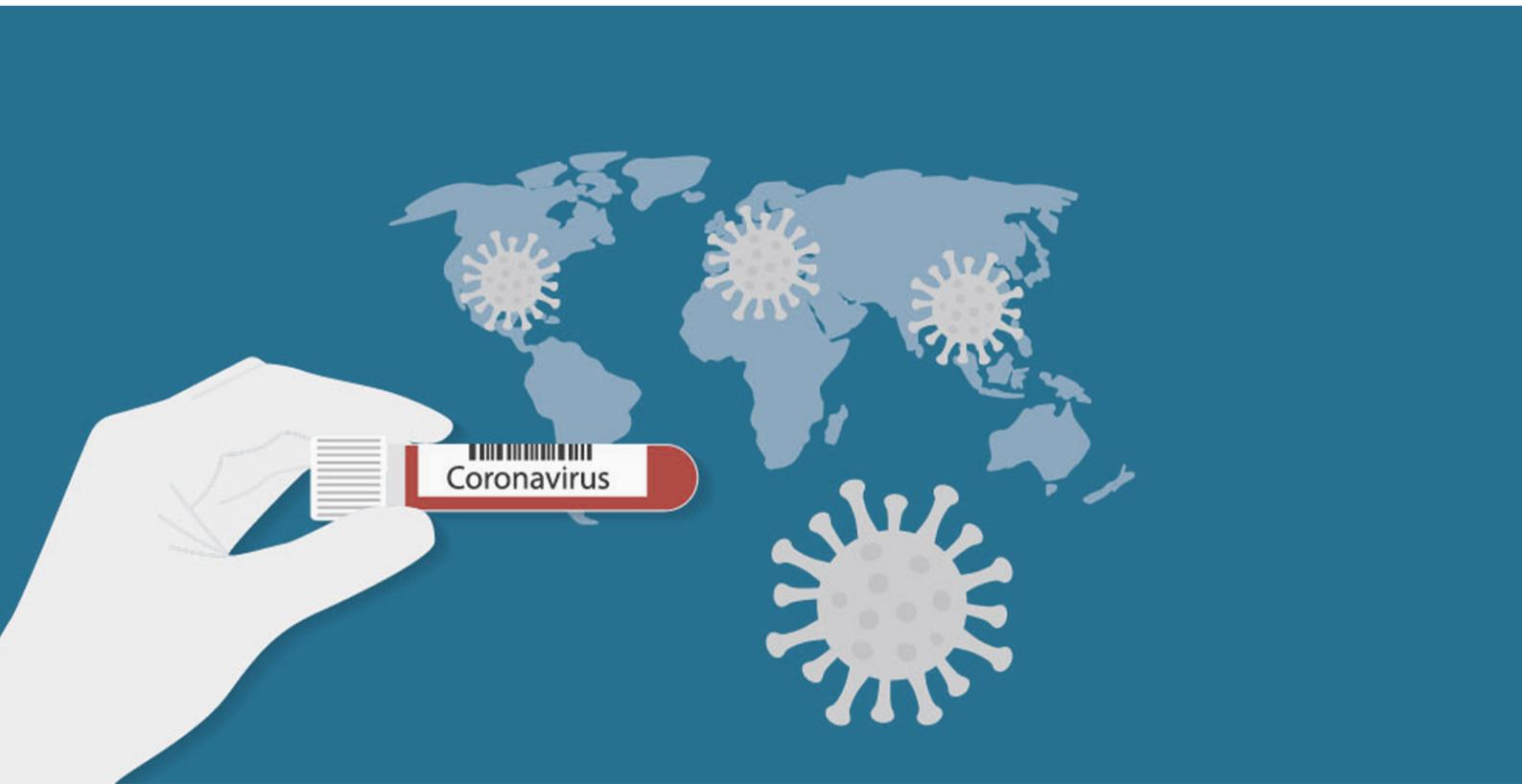
The COVID-19 pandemic altered the life of many people in different terms of everyday life. Some individuals started working from home remotely while others lost their jobs, partly because restaurants and bars were totally closed to reduce infection. Students also were not allowed to attend classes physically, and the lectures were given online. After March 2020, it became evident that digitalization has been more prominent than ever before.

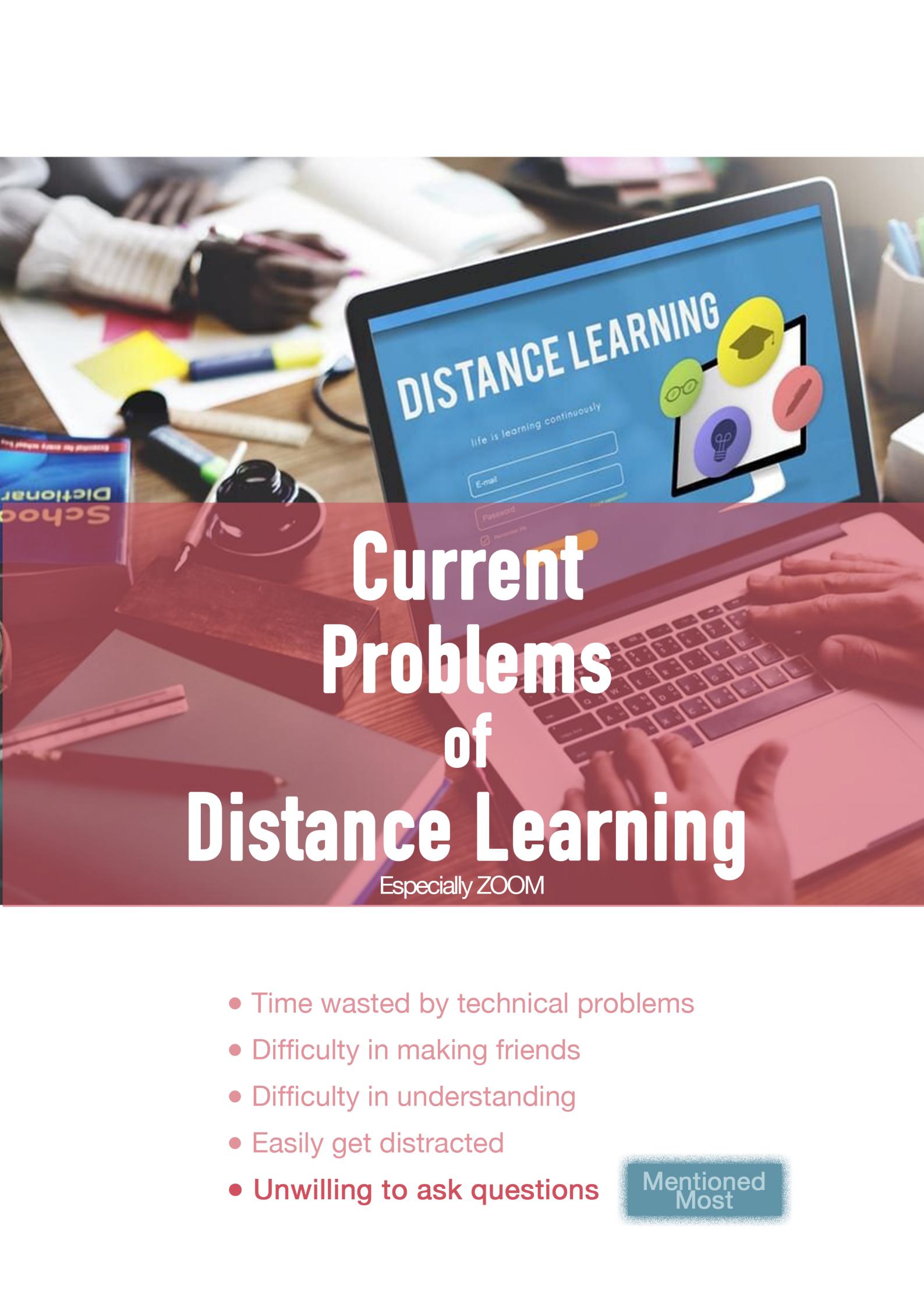
In our interviews
We found students are worrying about.....

Job loss
Infection
Inconvenience of transportation
Less Entertainment

Problems of distance learning

.....





Current Problems of Distance Learning

Especially ZOOM

- Time wasted by technical problems
- Difficulty in making friends
- Difficulty in understanding
- Easily get distracted
- Unwilling to ask questions

Mentioned
Most

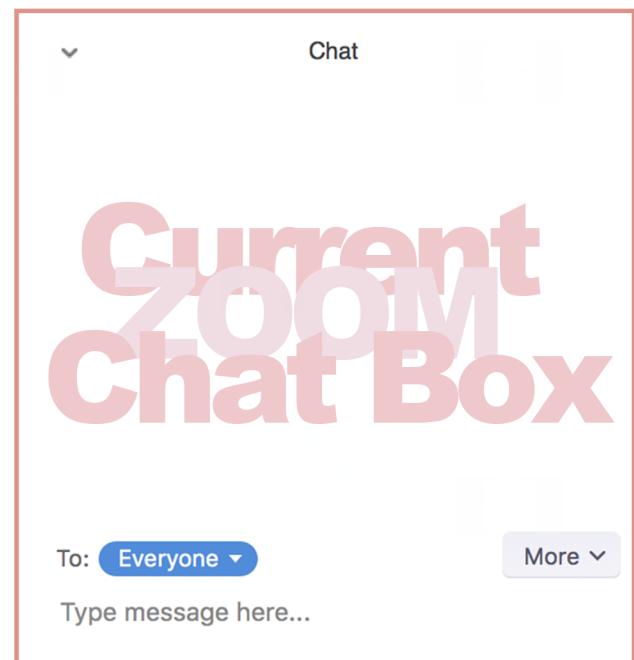
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Obliged to follow the governments instructions and obey the rules, university lectures were held online and students could no longer go to university physically. Besides, students had to attend lectures with online video conferencing applications, feeling alienated since there was no real contact either with the teacher or the students. Our user research shows that students are unwilling to ask questions when they are using ZOOM. It seems that the chat box at present is not a preferred way for students to ask questions.



**Improve the
question asking function!
(based on ZOOM)**

Personas



Alex

Age: 23

Male

Location: KTH campus

Background:

- EECS student

Goals:

- To ask questions easier online and not to miss important information

Frustration:

- His questions on the chat window are ignored by other students and lecturer
- A lot of similar and confusing questions are raised and he feels submerged
- Chat messages are mixed with questions

Pain points:

- He wants to understand the confusing part and get the teacher's answers clearly
- He does not want the questions be disturbed by chats

Alex feels a bit lost since he did not have an experience of digital classes before. In addition, he does not want to pose a question any more since most of the time the questions are neglected, repeated and mixed with chat messages in the chat window on Zoom. So, he feels disappointed with the new order of learning because he does not get concrete answers.

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Problem Statement

How might we

improve the question and chat function

for users to help them see all the **sent messages**

in a **more well-organized** way

so that they can?

- **distinguish chat and questions**
- **pay attention to all the questions**
- **see less repeated questions**

Exploring Solutions

Bodystorming

Student

Teacher

Adopted solutions

To reduce the number of after-class questions for teachers to answer by email

- Solve questions online during video conferencing

To distinguish chat and questions

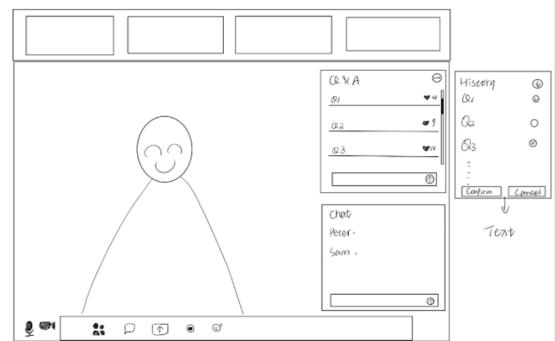
- Separate the chat and question into 2 parts

To make questions in a neater way without limiting students' authority

- Students ask freely but queue and questions will display in order
- Student can confirm if the question is covered

To avoid the annoying interruption of questions

- Let question silently appear on everyone's main window which is evident enough to catch attention



To prevent similar questions

- Similar questions can be prevented by a button to show "agree or like with others' questions".
- A student is gonna have the option down on the app to cancel his question and it is deleted automatically
- A teacher only will have the option to waive a question if he thinks that is similar to a previous one
- A teacher can combine them as a united question

To keep a record of the questions in class

- The teacher click the question to answer and then automatically start video recording
- History window above which enables a student to select questions to download with the video recording

Making Decisions

Questions displayed in the sequence of likes or timeline?

Timeline, to prevent some questions from being at the bottom all the time
Likes can show the importance of questions

The answered questions should be disappeared from the box or be kept?

They should be kept. Though moving them make the box neater, students may have no idea what questions have been asked. Since questions are displayed through timeline, and the current question being answered is on the main screen, students can know the process better.

The window is above the screen all the time?

Could be minimized by clicking the arrow, and just focus on the current question on the main screen.

History exported with videos , audios or text?

Writing text cost teachers' time and the quality of audios might be affected by outside noises, so videos recorded automatically are preferred.

"Transtexting" function by algorithms is provided for hearing-impaired students. Since it might lack accuracy, video is the main form.

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The screenshot shows a video conference interface. At the top, there are three participant thumbnails: Greg, Ziyi Zhu, and Jiatong Zhong. Below them is a large video feed of a teacher wearing glasses. On the right side, there is a Q&A panel with the following messages:

- Z What is the most important reason for the teasting enviroment 10:15 heart 12
- C Do participants need to bring their own phone? 10:23 heart 9
- Z Who can take their phones... 10:26

A text input field at the bottom of the Q&A panel says "Type question here ...". At the very bottom, there is a toolbar with icons for Mute, Video, Invite, Participants, Share, Chat, Q&A, Record, More, and Leave Meeting.

Here comes the final Q&A Window! The chat messages are devided from the questions to avoid chaos and the questions appear in the sequence of timeline. Just type your questions and send it by the key ENTER! Teachers will answer them one by one and combine the similar ones! Click the like if you have the similar questions with others! The window can be hidden through clicking the arrow on the top-left corner and you will see the handsome face of your teacher!



How does Q&A work?





Q&A

Z What is the most important reason for the testing environment 10:15
12

C Do participants need to bring their own phone? 10:23
9

Z Who can take their phones... 10:26

Type question here ...



What is the most important reason for the testing environment



Mute Video

Invite

Participants

Share

Chat

Q&A

Record

More

Leave Meeting

Q&A

Z What is the most important reason for the testing environment 10:15
12

C Do participants need to bring their own phone? 10:23
9

Right Click ! Edit or recall it if you find some mistakes with your sent question!

Q&A

10:15



10:23



10:26



...

Q&A

Export

Z What is the most important reason for the testing environment 10:15
12

C Do participants need to bring their own phone? 10:23

Z Who can take their phones... 10:26

Z What is the most important reason for the testing environment



Transcript ...

10:15



C Do participants need to bring their own phone?

10:23



Z Who can take their phones... 10:26

10:26



Let's export and download the answered question!
Select, click export, and get a web page with video recordings!
Hearing-impaired students can transcript !