

# lectureStudio – Tutorial 7: Chat & Quiz

Alex Andres, Andreas Koch, *Andy Schürr*  
Technical University of Darmstadt  
<https://www.lecturestudio.org>

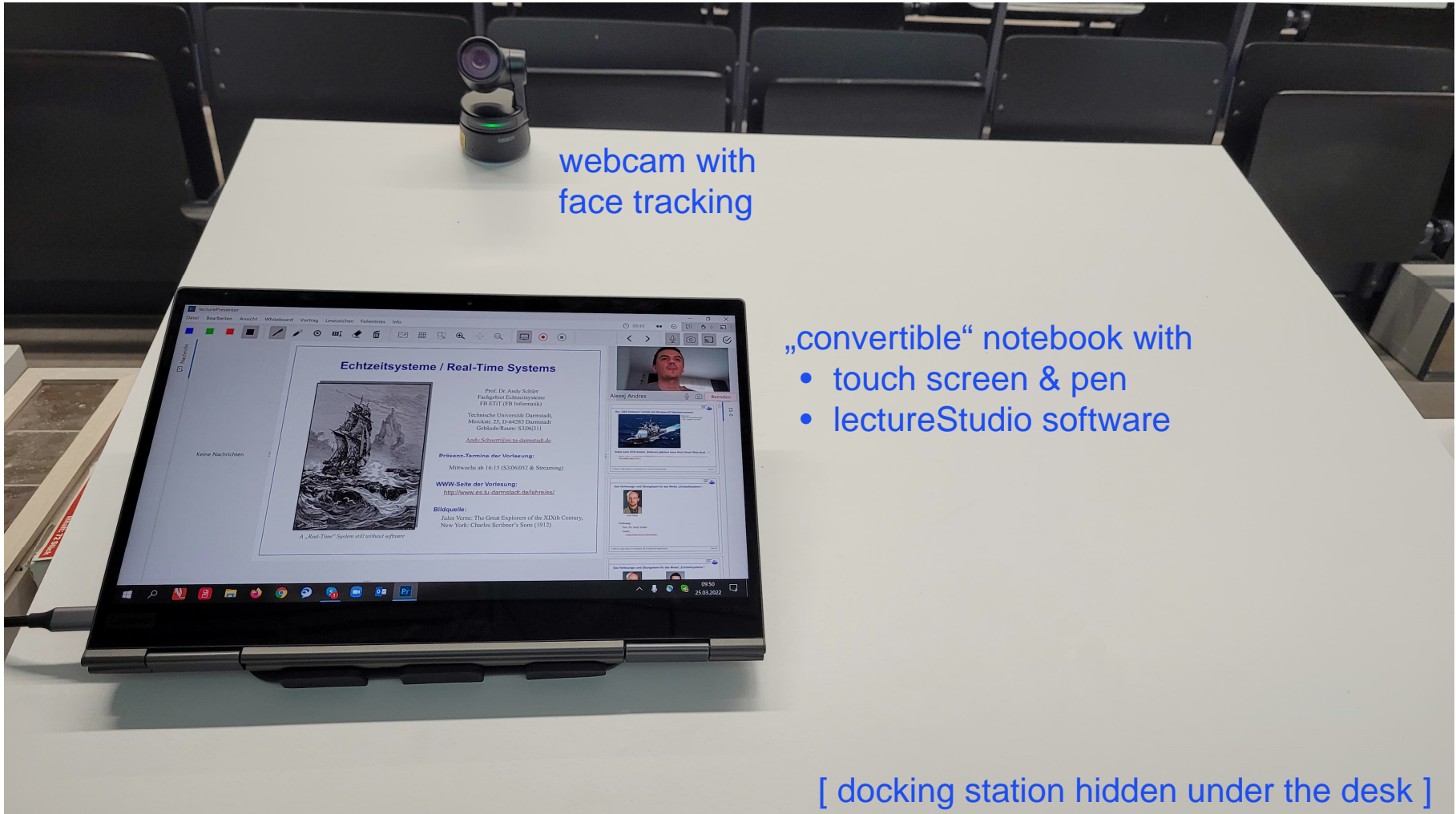


# eTeaching Work Place in 2020, 2021, ...





# Hybrid Setting (Lecture Hall & Streaming)





# Categories of eTeaching Tools

- presentation tools (with integrated whiteboard?)
  - PowerPoint, pdfpc, ...
- presentation recording and postprocessing tools
  - Panopto, Camtasia, Snagit, ...
- streaming / video conference tools
  - BigBlueButton, Zoom, ...
- interactive poll/quiz execution tools
  - Pingo, Moodle, ...
- interactive group chat tools
  - Element, Zoom, ...
- ...

**lecture-  
Studio**



# Categories of eTeaching Tools

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- presentation tools (with integrated whiteboard?)
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- streaming / video conference tools
  - BigBlueButton, Zoom, ...
- interactive poll/quiz execution tools
  - Pingo, Moodle, ...
- interactive group chat tools
  - Element, Zoom, ...
- ...

# lectureStudio Presenter - Streaming



stream running

deactivated webcam

Participants: Andreas Schür, Agnes Fleming, Noah Claypole, Oliver Twist, Rose Maylie, Toby Crackit

Messages

Notes

Videos

in class room

at home

## Starting Point: PDF Document (or ppt)

Categories of eTeaching Tools

- presentation tools (with integrated whiteboard?)
  - PowerPoint, pdfpc, ...
- presentation recording and postprocessing tools
  - Periscope, Camtasia, Snagit, ...
- streaming / video conference tools
  - BigBlueButton, Zoom, ...
- interactive pull/push execution tools
  - PingP, Moodle, ...
- interactive group chat tools
  - Element, Zoom, ...

PPSpliT (Powerpoint plugin)

PDF creation

open

Powerpoint presentation (with animations)

Powerpoint presentation (with unfolded animations)

PDF presentation (with embedded comments)

presentation, recording, streaming (with lectureStudio Presenter)

lectureStudio Presenter – User Interface

lectureStudio – Tutorial 1: Survey

28

# lectureStudio Presenter - Whiteboard



lecturePresenter

File Edit View Whiteboard Lecture Bookmarks Info

0:04:05 11:43 0:03:39 5 + 1

Participants: Andreas Schür, Agnes Fleming, Noah Claypole, Oliver Twist, Rose Maylie, Toby Crackit

Messages

Notes

Videos

## Whiteboard

The diagram illustrates the LectureStudio architecture. A central 'Presenter' component is connected to a 'PDF' document on the left and a 'Rec. Pres.' (Recording Presentation) document on the right. Above the 'Presenter' is a sun-like icon with rays. Two arrows labeled 'streaming' point from the 'Presenter' to two separate monitor icons on the right. The entire diagram is hand-drawn in black ink on a white background.

lectureStudio – Tutorial

Whiteboard

lectureStudio – Tutorial 1 - Unfo... Whiteboard

# lectureStudio Client – “At Home” Media Mode



client running in Brave, Chrome, Edge, Firefox, Safari, ...

lect.stream/course/35397274-9409-4e50-ace2-6ab32f0989c3

lectureStreaming **At home** lectureStudio Tutorials Courses Settings Oliver Twist ▾

Participants (6)

- AF Agnes Fleming
- AS Andreas Schürr
- NC Noah Claypole
- OT Oliver Twist (Me)**
- RM Rose Maylie
- TC Toby Crackit

participant list

### Whiteboard

lectureStudio – Tutorial

0:06:35

Chat

avatar picture

message recipient

new message

Send to Andreas Schürr ▾

centralized server architecture to distribute PDF documents to clients?



# lectureStudio Client – “At Home” Media Mode



lectureStreaming **At home** lectureStudio Tutorials Courses Settings Oliver Twist ▾

Participants (6)

- AF Agnes Fleming
- AS Andreas Schürr
- NC Noah Claypole
- OT Oliver Twist (Me)
- RM Rose Maylie
- TC Toby Crackit

**Whiteboard**

lectureStudio – Tutorial

0:08:13

**Chat**

Privately Me to Andreas Schürr 11:48

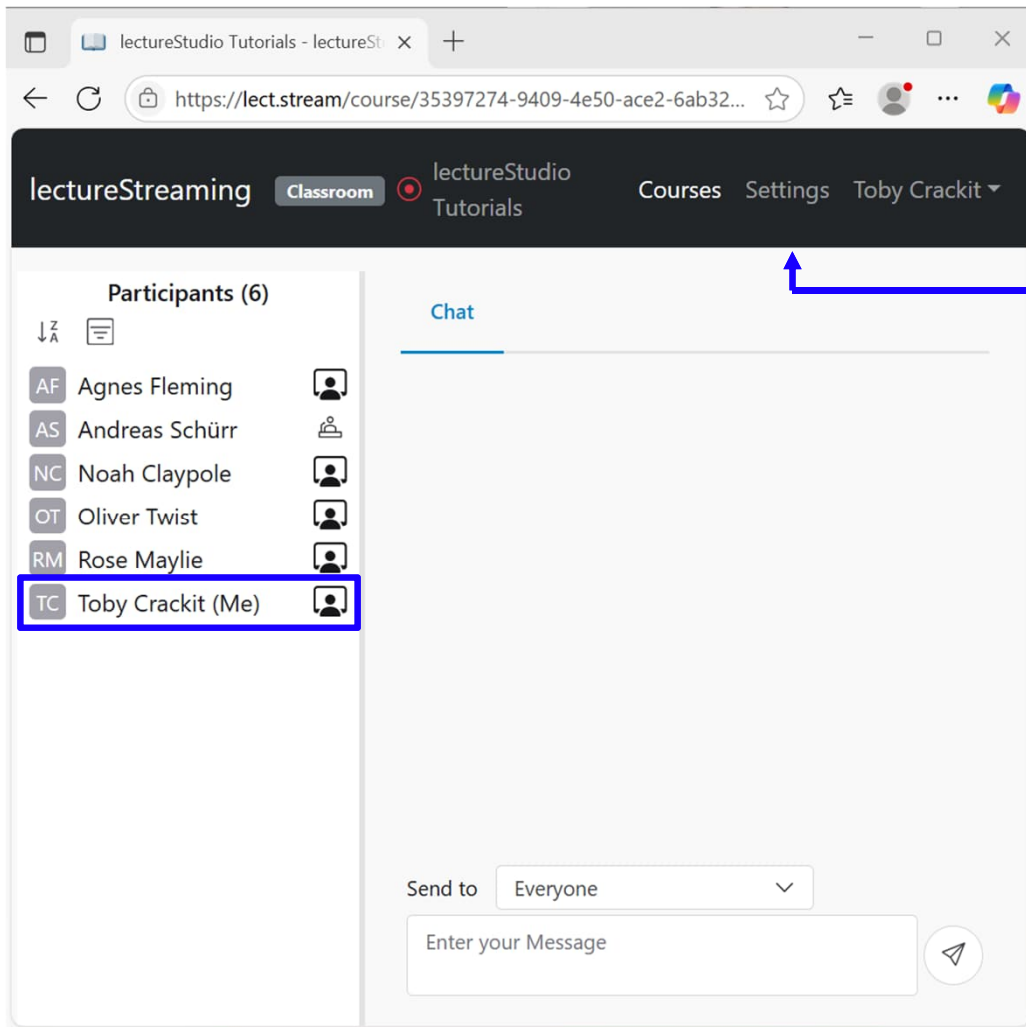
Does lectureStudio make use of a distributed Peer-to-Peer or a centralized server architecture to distribute PDF documents to clients?

reply delete edit

Send to Andreas Schürr ▾

Enter your Message

# lectureStudio Client – “Class Room” Media Mode



configuration options for

- device settings (microphone, ... )
- media mode (“class room”, “at home”)
- ...

# lectureStudio Presenter – Messages Subwindow



lecturePresenter

File Edit View Whiteboard Lecture Bookmarks Info

0:10:25 09:41 0:02:31

Participants Messages Notes Videos

Send

Oliver Twist to me 9:42

Does lectureStudio make use of a distributed Peer-to-Peer or a centralized server architecture to distribute PDF documents to clients?

confirm

transform into PDF slide

## Whiteboard

streaming

lectureStudio – Tutorial

### Whiteboard

# lectureStudio Presenter – Generated Message Slide



lecturePresenter

File Edit View Whiteboard Lecture Bookmarks Info

0:11:05 09:42 0:03:12 0 5 +1

Participants: Andreas Schür, Agnes Fleming, Noah Claypole, Oliver Twist, Rose Maylie, Toby Crackit

Messages

Notes

Videos

## Chat Contribution

Does lectureStudio make use of a distributed Peer-to-Peer or a centralized server architecture to distribute PDF documents to clients?

©pixabay.com

lectureStudio – Tutorial

Chat Contribution

Does lectureStudio make use of a distributed Peer-to-Peer or a centralized server architecture to distribute PDF documents to clients?

©pixabay.com

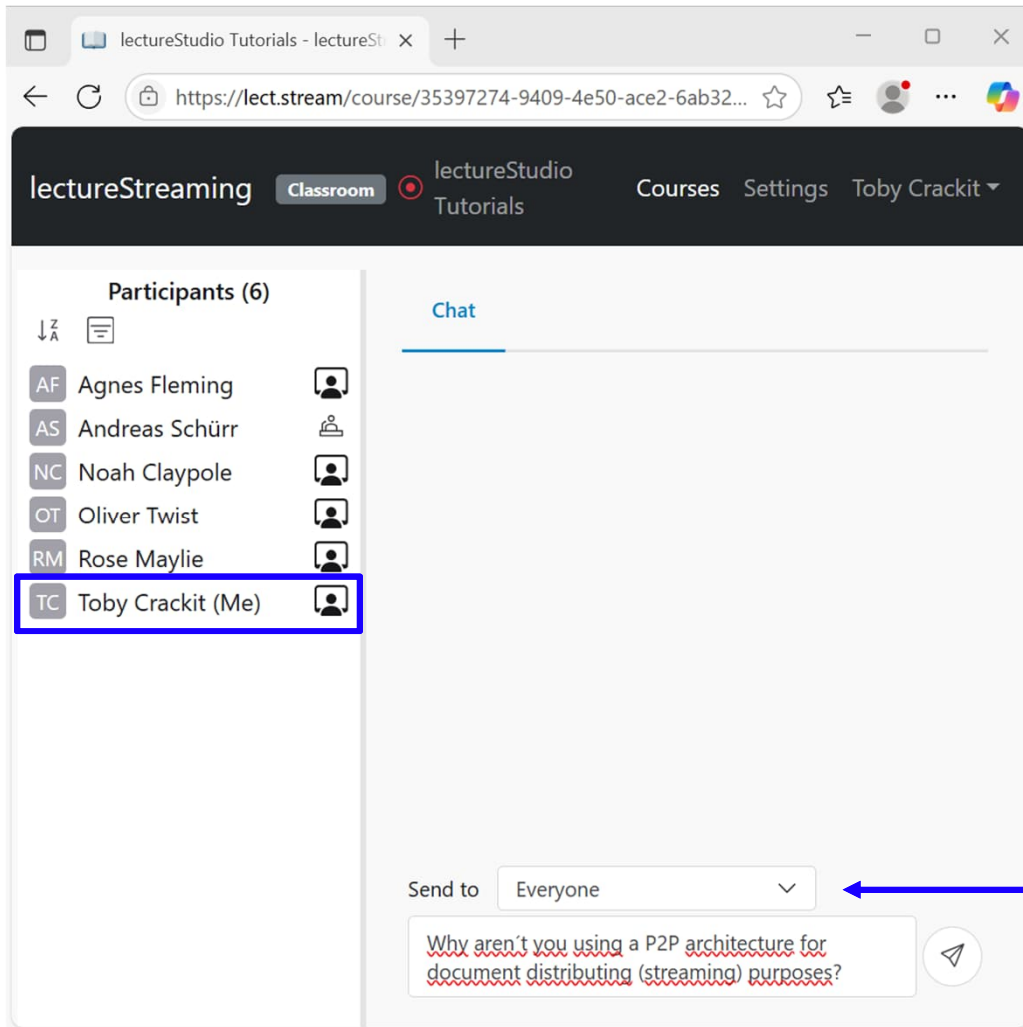
lectureStudio – Tutorial

Whiteboard

Message



# lectureStudio Client – „Class Room“ Media Mode

A screenshot of the lectureStudio Classroom interface. The browser address bar shows the URL: https://lect.stream/course/35397274-9409-4e50-ace2-6ab32... The interface has a dark header with 'lectureStreaming' and 'Classroom' tabs. Below the header, there's a 'Participants (6)' list on the left and a 'Chat' area on the right. The participants list includes: AF Agnes Fleming, AS Andreas Schürr, NC Noah Claypole, OT Oliver Twist, RM Rose Maylie, and TC Toby Crackit (Me). The 'TC Toby Crackit (Me)' entry is highlighted with a blue box. The chat area shows a message input field with the text 'Why aren't you using a P2P architecture for document distributing (streaming) purposes?' and a 'Send to' dropdown menu set to 'Everyone'. A blue arrow points from the text 'public message (visible for all participants)' to the 'Send to' dropdown.

# lectureStudio Client – Asking for Video Call



lectureStudio Tutorials - lecture x +

lect.stream/course/35397274-9409-4e50-ace2-6ab32f0989c3

lectureStreaming **At home** lectureStudio Tutorials Courses Settings Agnes Fleming ▾

Participants (6)

- AF Agnes Fleming (Me)
- AS Andreas Schürr
- NC Noah Claypole
- OT Oliver Twist
- RM Rose Maylie
- TC Toby Crackit

### Chat Contribution

Does lectureStudio make use of a distributed Peer-to-Peer or a centralized server architecture to distribute PDF documents to clients?

No!

09:45 AM **Toby Crackit**

Why aren't you using a P2P architecture for document distributing (streaming) purposes?

public message

Send to Everyone ▾

Enter your Message

0:14:32 raised hand

# lectureStudio Presenter – Starting Video Call



lecturePresenter

File Edit View Whiteboard Lecture Bookmarks Info

0:14:29 09:46 0:06:36 1 1 5 + 1

Participants

Messages

Notes

Videos

Send

Toby Crackit 9:45  
Why aren't you using a P2P architecture for document distributing (streaming) purposes?

Agnes Fleming 9:46  
raised the hand

reject

accept

## Chat Contribution

Does lectureStudio make use of a distributed Peer-to-Peer or a centralized server architecture to distribute PDF documents to clients?

No!

lectureStudio – Tutorial

Chat Contribution

Does lectureStudio make use of a distributed Peer-to-Peer or a centralized server architecture to distribute PDF documents to clients?

No!

Whiteboard

Message

# lectureStudio Presenter – Waiting for Video Conn.



lecturePresenter

File Edit View Whiteboard Lecture Bookmarks Info

0:15:19 09:46 0:07:26

Participants

Andreas Schür

Waiting for

Agnes Fleming

## Chat Contribution

Does lectureStudio make use of a distributed Peer-to-Peer or a centralized server architecture to distribute PDF documents to clients?

No!

lectureStudio – Tutorial

Chat Contribution

Does lectureStudio make use of a distributed Peer-to-Peer or a centralized server architecture to distribute PDF documents to clients?

No!

Whiteboard

Message



# lectureStudio Client – Accepting Video Call



The screenshot shows the lectureStudio web interface. At the top, the browser address bar shows the URL 'lect.stream/course/35397274-9409-4e50-ace2-6ab32f0989c3'. The interface has a dark header with 'lectureStreaming' and 'At home' on the left, 'lectureStudio Tutorials' in the center, and 'Courses Settings Agnes Fleming' on the right. On the left side, there is a 'Participants (6)' list with icons for Agnes Fleming (Me), Andreas Schürr, Noah Claypole, Oliver Twist, Rose Maylie, and Toby Crackit. The main area is titled 'Chat Contribution' and features a large yellow speech bubble containing the text: 'Does lectureStudio make use of a distributed Peer-to-Peer or a centralized server architecture to distribute PDF documents to clients?'. A white dialog box with a blue border is overlaid on the chat area, titled 'Speech request accepted'. It contains the text 'Start your speech now or cancel it if you have changed your mind.' and two buttons: 'Cancel' and 'Start'. The background of the chat area shows a 3D rendering of a person at a podium and a large question mark. On the right side, there is a 'Chat' section with a video feed of a man and a text chat area. The text chat shows a message from 'Toby Crackit' at 09:45 AM: 'Why aren't you using a P2P architecture for document distributing (streaming) purposes?'. At the bottom, there is a 'Send to' dropdown menu set to 'Everyone' and a text input field for 'Enter your Message'.

# lectureStudio Client – Running Video Call



lectureStudio Tutorials - lect x +

lect.stream/course/35397274-9409-4e50-ace2-6ab32f0989c3

lectureStreaming At home lectureStudio Tutorials Courses Settings Agnes Fleming

Participants (6)

- AF Agnes Fleming (Me)
- AS Andreas Schürr
- NC Noah Claypole
- OT Oliver Twist
- RM Rose Maylie
- TC Toby Crackit

### Chat Contribution

Does lectureStudio make use of a distributed Peer-to-Peer or a centralized server architecture to distribute PDF documents to clients?

Na!

Agnes Fleming (Me)

09:45 AM Toby Crackit

Why aren't you using a P2P architecture for document distributing (streaming) purposes?

Send to Everyone

Enter your Message

0:18:58

lectureStudio – Tutorial

webcam tiles of video call participants

# lectureStudio Presenter – Running Video Call



lecturePresenter

File Edit View Whiteboard Lecture Bookmarks Info

0:18:51 09:50 0:10:57 1 0 5 + 1

Participants Messages Notes Videos

Andreas Schürr

Agnes Fleming

video call tiles

(un-)mute

terminate video call

## Chat Contribution

Does lectureStudio make use of a distributed Peer-to-Peer or a centralized server architecture to distribute PDF documents to clients?

No!

lectureStudio – Tutorial

Chat Contribution

Does lectureStudio make use of a distributed Peer-to-Peer or a centralized server architecture to distribute PDF documents to clients?

No!

lectureStudio – Tutorial

Whiteboard Message

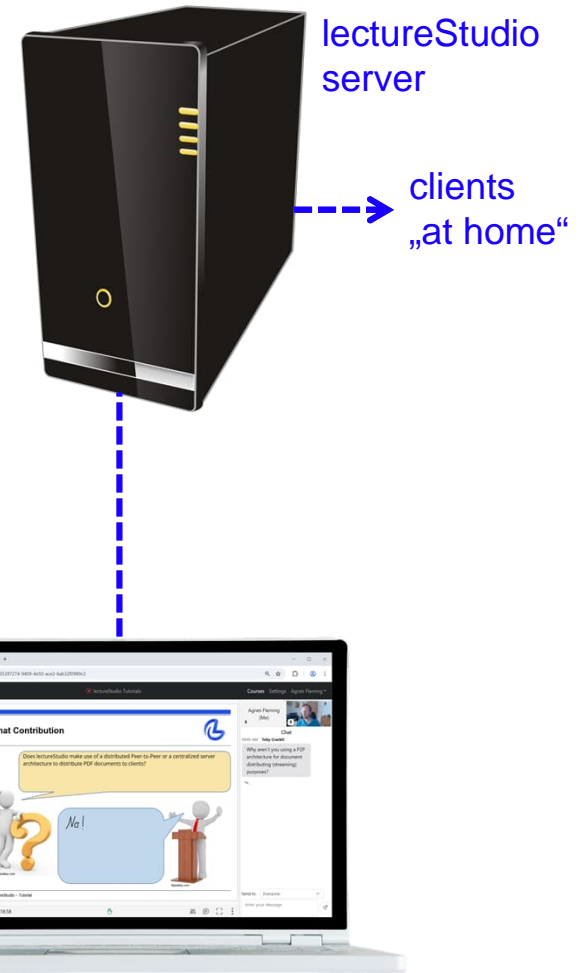
# lectureStudio – Lecture Hall Contributions



generated with ChatGPT

throwable  
microphone

client in the lecture hall





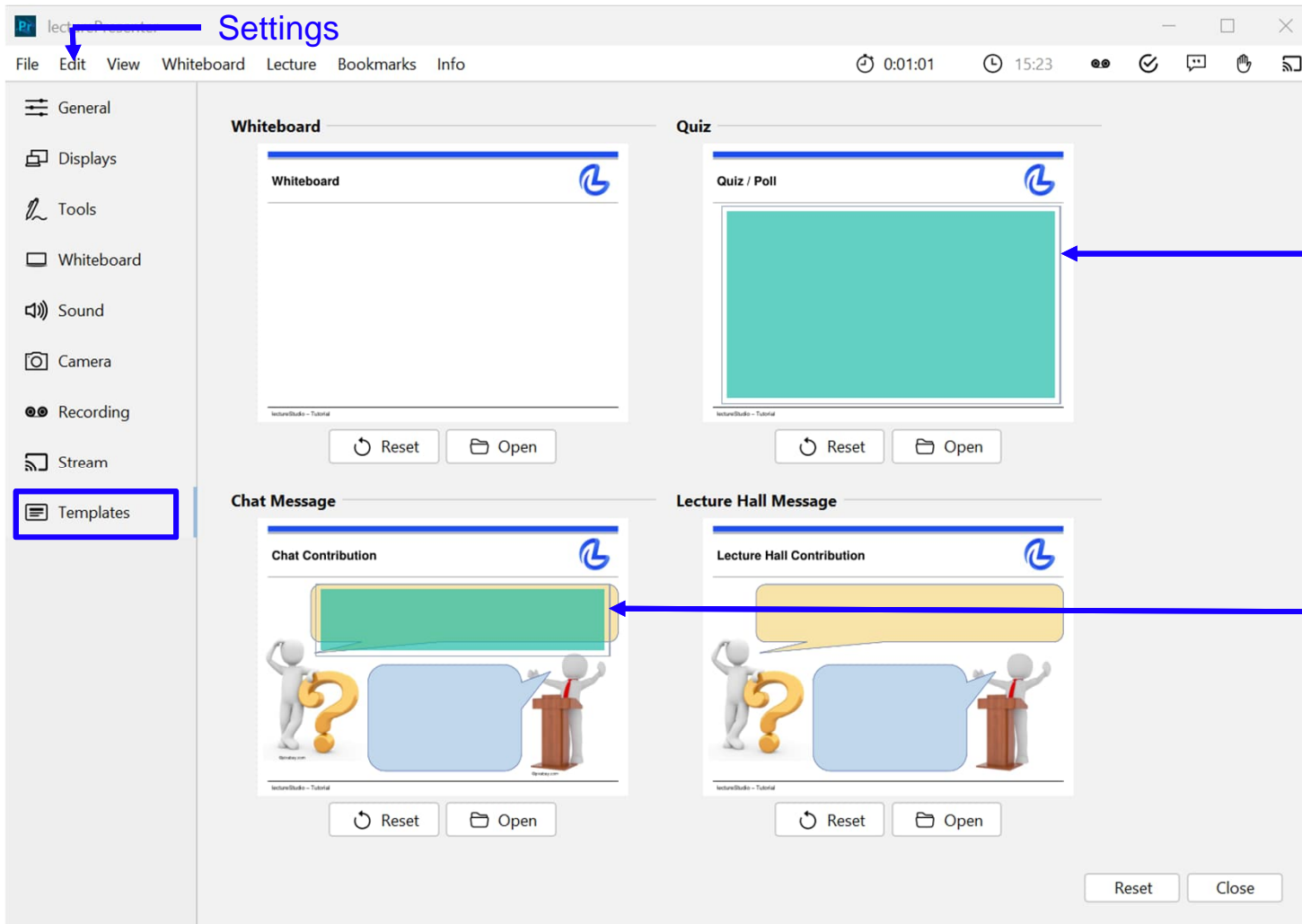
# lectureStudio Presenter – Generated Question Slide



generate slide for lecture hall contribution

The screenshot shows the LectureStudio Presenter application window. The main slide is titled 'Lecture Hall Contribution' and features a large yellow speech bubble and a large blue speech bubble. A 3D white figure stands next to a large yellow question mark on the left, and another 3D white figure stands at a podium on the right. The interface includes a top menu bar (File, Edit, View, Whiteboard, Lecture, Bookmarks, Info), a toolbar with various icons, and a sidebar on the left with tabs for Participants, Messages, Notes, and Videos. A chat window is open on the left, showing a message from Toby Crackit at 9:45: 'Why aren't you using a P2P architecture for document distributing (streaming) purposes?'. On the right, a vertical sidebar contains links for 'LectureStudio - Tutorial 1 - Info...', 'Whiteboard', 'Message', and 'Message from the auditorium'. A small inset window on the right shows a thumbnail of the current slide. A blue arrow points from the text 'generate slide for lecture hall contribution' to the 'generate' icon in the top right corner of the application window.

# lectureStudio Presenter – Slide Templates



area for  
quiz text  
and charts

area for  
message

# lectureStudio Presenter – Quiz Definition



select to open list of defined quizzes

The screenshot displays the LectureStudio Presenter application. A subwindow titled "Select quiz" is open, showing a list of defined quizzes. The subwindow has a menu bar (File, Edit, View, Whiteboard, Lecture, Bookmarks, Info) and a toolbar with various icons. The quiz list is as follows:

Question	Quiz type	Actions
Please vote (abstention is permitted):	single choice	✓, ✎, ✖
Please vote (abstention is not permitted):	single choice	✓, ✎, ✖
What role does bandwidth play when presentations (lectures) are streamed in real-time?	multiple choice	✓, ✎, ✖
Please name up to two software systems that are used for streaming lectures at your institution:	word cloud	✓, ✎, ✖

Annotations in the image:

- A blue arrow points from the text "select to open list of defined quizzes" to the "Select quiz" button in the top right of the main window.
- A blue arrow points from the text "quizzes associated with presentation (open PDF document)" to the PDF icon next to the third quiz question.
- A blue arrow points from the text "single choice" to the radio button icon in the "Quiz type" column for the first two quizzes.
- A blue arrow points from the text "word cloud" to the cloud icon in the "Quiz type" column for the fourth quiz.
- A blue arrow points from the text "multiple choice" to the checkmark icon in the "Quiz type" column for the third quiz.
- A blue arrow points from the text "subwindow with list of defined quizzes" to the "Select quiz" subwindow.

The main window shows a list of participants on the left and a series of slides on the right, including "Generated Question Slide", "Slide Templates", "Course-specific Quiz URL", and "Tutorial 7: Chat & Quiz".

# lectureStudio Presenter – Quiz Definition



lecturePresenter

File Edit View Whiteboard Lecture Bookmarks Info 0:22:04 09:33 0:13:53

### Create quiz

Question

What role does bandwidth play when presentations (lectures) are streamed in real-time?

Notes for the quiz

It's a matter of debate whether or not bandwidth sets a limit for the number of participants of a presentation stream. One may argue that the number of participants is almost unlimited if no limits are set for video and audio quality.

Quiz type

- ☒ Multiple choice
- ☐ Single choice
- ☐ Numeric
- ☐ Free-Text

Task collection lectureStudio-Tutorial-7-Unfolded

Answer

It determines the number of participants allowed.	<input checked="" type="checkbox"/>	↑	↓	🗑️
It influences video and audio quality.	<input checked="" type="checkbox"/>	↑	↓	🗑️
It restricts the use of background images.	<input type="checkbox"/>	↑	↓	🗑️
It blocks unauthorized users.	<input type="checkbox"/>	↑	↓	🗑️

+ New quiz option

Close Save quiz & create new one Save quiz Start quiz

quiz text

notes (for presenter)

associated with open presentation

quiz type

mark correct answer(s)

answer options

start quiz



# lectureStudio Presenter – Start Quiz



lecturePresenter

File Edit View Whiteboard Lecture Bookmarks Info

0:02:44 10:06

Participants Messages Notes Videos

It's a matter of debate whether or not bandwidth sets a limit for the number of participants of a presentation stream. One may argue that the number of participants is almost unlimited if no limits are set for video and audio quality.

**Quiz / Poll**

What role does bandwidth play when presentations (lectures) are streamed in real-time?

- A) It determines the number of participants allowed.
- B) It influences video and audio quality.
- C) It restricts the use of background images.
- D) It blocks unauthorized users.

lectureStudio – Tutorial

**Quiz / Poll**

What role does bandwidth play when presentations (lectures) are streamed in real-time?

- A) It determines the number of participants allowed.
- B) It influences video and audio quality.
- C) It restricts the use of background images.
- D) It blocks unauthorized users.

Stop

quiz notes

generated quiz slide (PDF)

additional quiz slide with correct answers highlighted

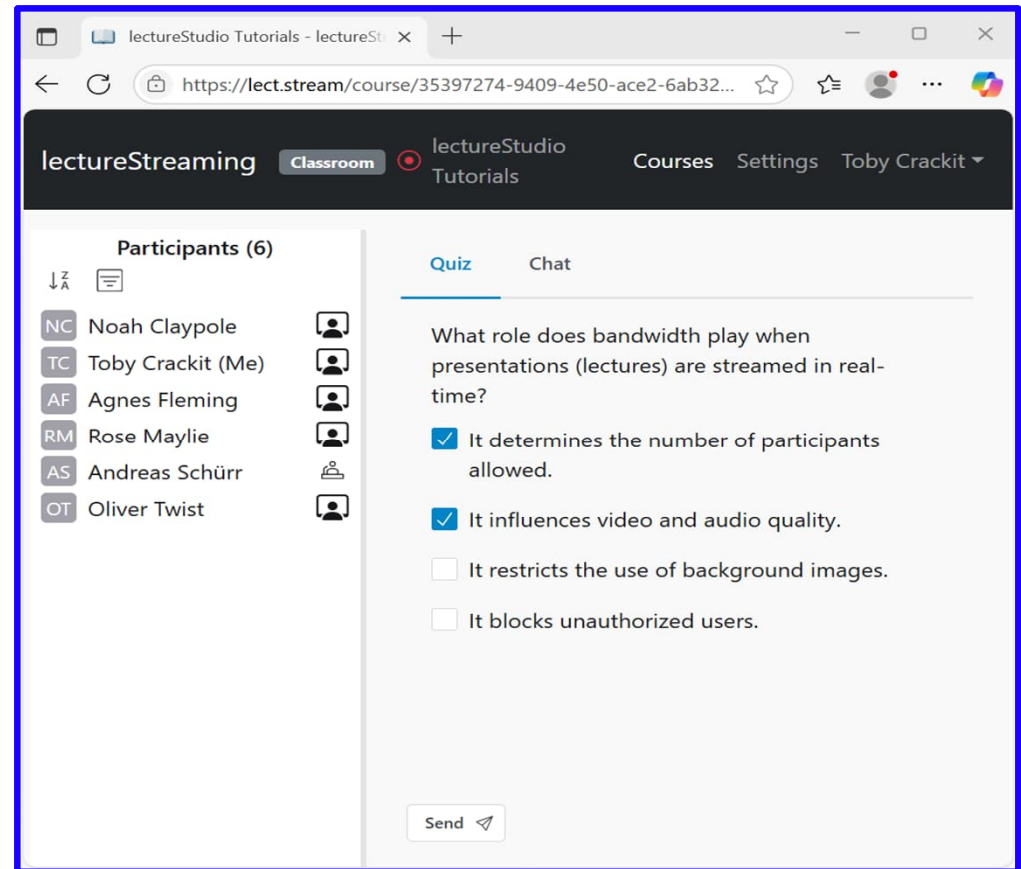
stop running quiz

# lectureStudio Client – „Class Room“ Media Mode



Scan QR code or  
type URL:

<https://lect.stream/course/<course shortcut>/classroom>



# lectureStudio Client – „At Home“ Media Mode



lectureStreaming **At home** lectureStudio Tutorials Courses Settings Agnes Fleming ▾

Participants (6)

- NC Noah Claypole
- TC Toby Crackit
- AF Agnes Fleming (Me)
- RM Rose Maylie
- AS Andreas Schürr
- OT Oliver Twist

### Quiz / Poll

What role does bandwidth play when presentations (lectures) are streamed in real-time?

- ☐ It determines the number of participants allowed.
- ☒ It influences video and audio quality.
- ☐ It restricts the use of background images.
- ☐ It blocks unauthorized users.

Close Send

Chat

Send to: Everyone ▾

Enter your Message

0:03:40 select

opens quiz subwindow

# lectureStudio Presenter – Running Quiz



lecturePresenter

File Edit View Whiteboard Lecture Bookmarks Info

0:15:23 09:26 0:07:12 5 5 + 1

Participants

- Andreas Schür
- Agnes Fleming
- Noah Claypole
- Oliver Twist
- Rose Maylie
- Toby Crackit

Messages

Notes

Videos

in class room

at home

## Quiz / Poll

What role does bandwidth play when presentations (lectures) are streamed in real-time?

- A) It determines the number of participants allowed.
- B) It influences video and audio quality.
- C) It restricts the use of background images.
- D) It blocks unauthorized users.

lectureStudio – Tutorial

charts (realtime updates)

Stop

Quiz / Poll

What role does bandwidth play when presentations (lectures) are streamed in real-time?

A) It determines the number of participants allowed. ✓

B) It influences video and audio quality.

C) It restricts the use of background images.

D) It blocks unauthorized users.

Quiz / Poll

What role does bandwidth play when presentations (lectures) are streamed in real-time?

A) It determines the number of participants allowed.

B) It influences video and audio quality.

C) It restricts the use of background images.

D) It blocks unauthorized users.

Quiz / Poll

What role does bandwidth play when presentations (lectures) are streamed in real-time?

A) It determines the number of participants allowed.

B) It influences video and audio quality.

C) It restricts the use of background images.

D) It blocks unauthorized users.

# lectureStudio Presenter – Quiz Finished



lecturePresenter

File Edit View Whiteboard Lecture Bookmarks Info

0:17:28 09:28 0:09:16 5 + 1

Participants: Andreas Schür, Agnes Fleming, Noah Claypole, Oliver Twist, Rose Maylie, Toby Crackit

Messages

Notes

Videos

## Quiz / Poll

A (20,0%) B (20,0%) A, B (60,0%) ✓

A) It determines the number of participants allowed.  
B) It influences video and audio quality.  
C) It restricts the use of background images.  
D) It blocks unauthorized users.

lectureStudio – Tutorial

Quiz / Poll

What role does bandwidth play when presentations (lectures) are streamed in real time?

A) It determines the number of participants allowed. ✓  
B) It influences video and audio quality. ✓  
C) It restricts the use of background images.  
D) It blocks unauthorized users.

Quiz / Poll

A) It determines the number of participants allowed.  
B) It influences video and audio quality.  
C) It restricts the use of background images.  
D) It blocks unauthorized users.

Quiz / Poll

A) It determines the number of participants allowed.  
B) It influences video and audio quality.  
C) It restricts the use of background images.  
D) It blocks unauthorized users.

Stop

# lectureStudio Presenter – Quiz Finished



lecturePresenter

File Edit View Whiteboard Lecture Bookmarks Info

0:18:30 09:29 0:10:18

Participants

- Andreas Schür
- Agnes Fleming
- Noah Claypole
- Oliver Twist
- Rose Maylie
- Toby Crackit

Messages

Notes

Videos

## Quiz / Poll

What role does bandwidth play when presentations (lectures) are streamed in real-time?

- A) It determines the number of participants allowed. ✓
- B) It influences video and audio quality. ✓
- C) It restricts the use of background images.
- D) It blocks unauthorized users.

lectureStudio – Tutorial

Quiz / Poll

What role does bandwidth play when presentations (lectures) are streamed in real-time?

A) It determines the number of participants allowed. ✓

B) It influences video and audio quality. ✓

C) It restricts the use of background images.

D) It blocks unauthorized users.

Quiz / Poll

What role does bandwidth play when presentations (lectures) are streamed in real-time?

A) It determines the number of participants allowed. ✓

B) It influences video and audio quality. ✓

C) It restricts the use of background images.

D) It blocks unauthorized users.

Quiz / Poll

What role does bandwidth play when presentations (lectures) are streamed in real-time?

A) It determines the number of participants allowed. ✓

B) It influences video and audio quality. ✓

C) It restricts the use of background images.

D) It blocks unauthorized users.

Stop



# lectureStudio – Tutorial 7: Chat & Quiz

Alex Andres, Andreas Koch, *Andy Schürr*  
Technical University of Darmstadt  
<https://www.lecturestudio.org>



## Financial Support:

- Collaborative Research Center 1053 MAKI  
(<https://www.maki.tu-darmstadt.de/>)
- Dept. of Electrical Engineering & Information Technology, TU Darmstadt  
(<https://www.etit.tu-darmstadt.de/fachbereich/>)
- Dept. of Computer Science, TU Darmstadt  
(<https://www.informatik.tu-darmstadt.de/fb20/>)