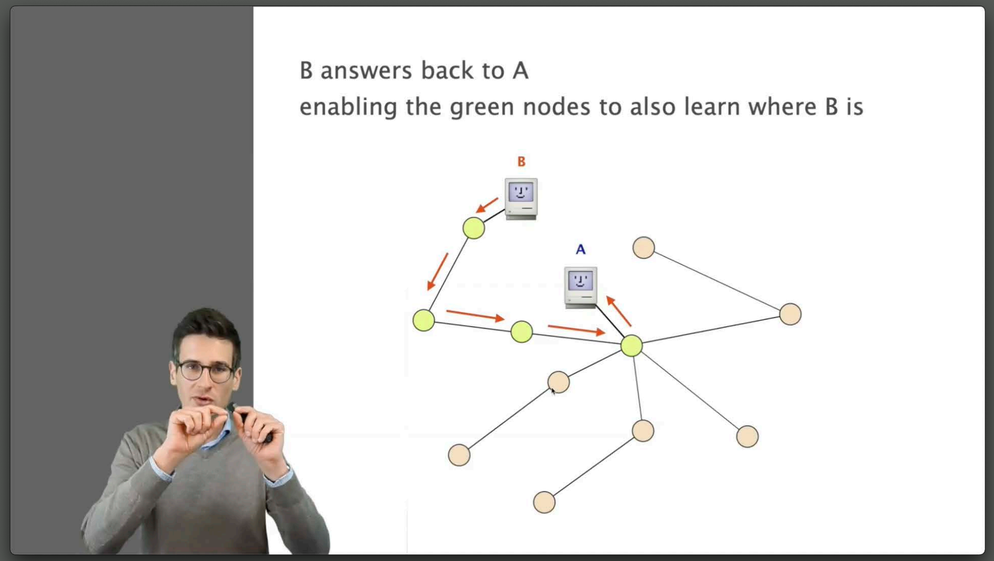
Staying engaged—slides, video and the professor

My experience teaching online



Prof. Laurent Vanbever

nsg.ee.ethz.ch

Refresh Teaching @ETH Zurich

Thu Apr 8 2021

About 35'700'000 results (0.48 seconds)

Over the last three semesters,

I've been teaching four lectures

		# students
Spring 2020 2021	Communication Networks (BSc)	~150
Fall 2020	Discrete Event Systems (BSc)	~90
	Adv. Topics in Communications Networks (MSc)	~70

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Over the last three semesters,

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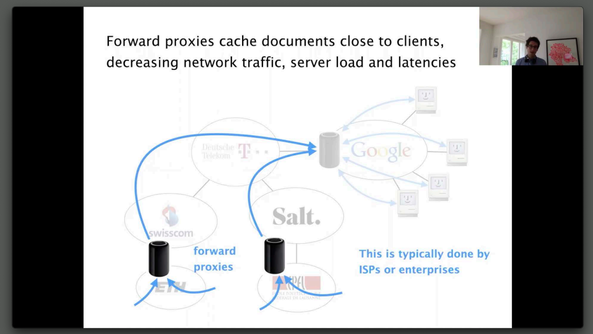
			# students
	2020	Communication Networks (BSc)	~150
purely online	Spring 2021		
	Fall 2020	Discrete Event Systems (BSc)	~90
		Adv. Topics in Communications Networks (MSc)	~70

3 semesters, 3 iterations

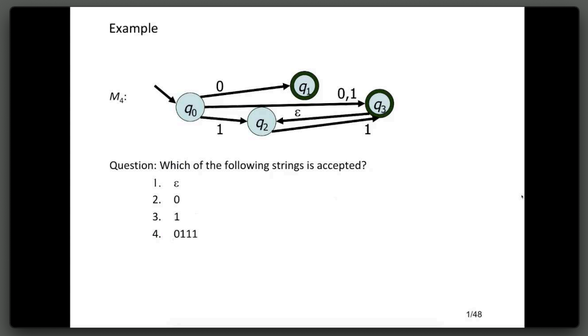
hopefully, for the better

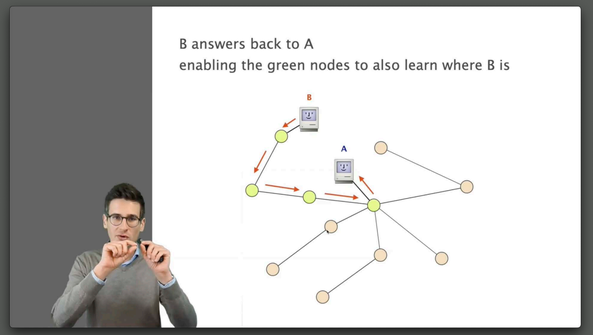
Spring 2020



Fall 2020

Spring 2021

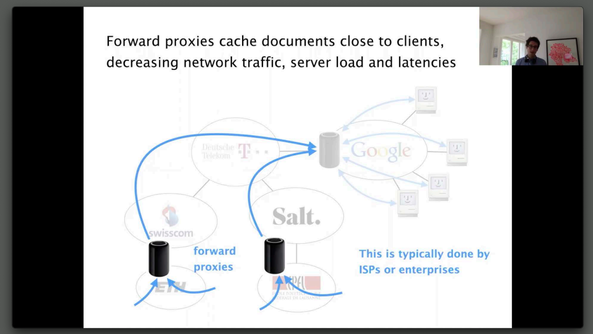




Step 1: The genesis

Learning what does ***not*** work

Spring 2020



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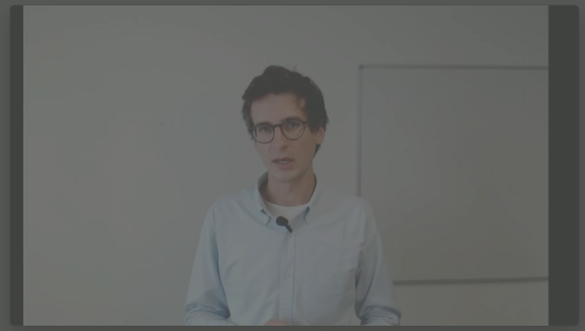
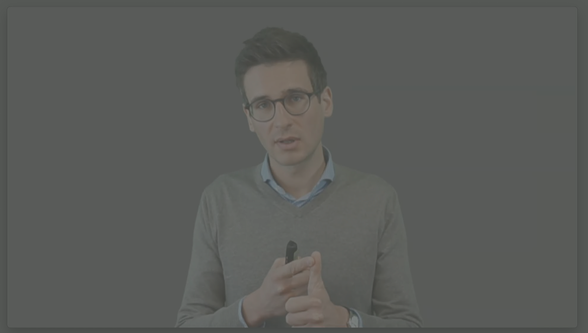
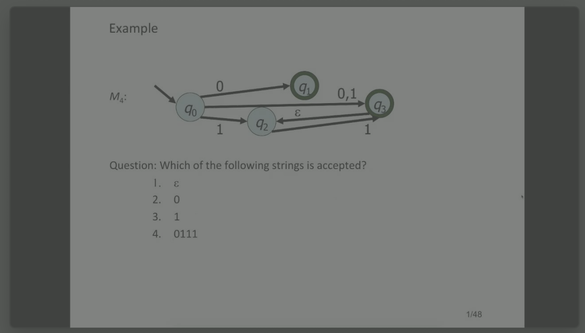
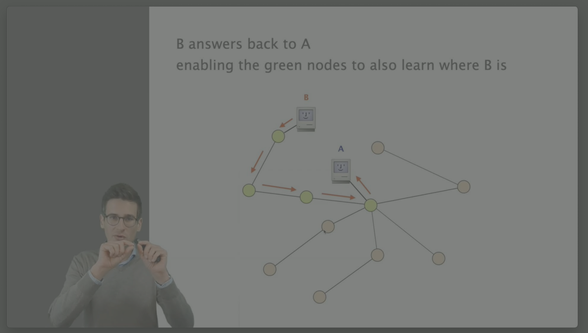


Spring 2021







I initially thought of reusing our "old" lectures recordings

March 13 2020

Subject: Important information regarding online lecturing

Body:

Dear students,

We would like to update you on our online offerings following yesterday's suspension of all classroom teaching by the rectorate. […]

For the lectures, we'll mostly rely on the 2019 video recordings.
We will update the course website every week with the slides and link to the corresponding recording(s).

[…]

Unsurprisingly,

this ended up being highly suboptimal

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this ended up being highly suboptimal

Students couldn't see me anymore
non-verbal communication was completely gone

Students couldn't see what I was pointing at anymore
nor what I was writing on the blackboard

Students couldn't interact anymore
no more opportunities for questions, comments, etc.

Luckily we identified these problems early on

as we always run our own students survey mid-term

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as we always run our own students survey mid-term

questions
(excerpt)

Are you satisfied with the lecture so far?

What is it that you don't like about the lecture?

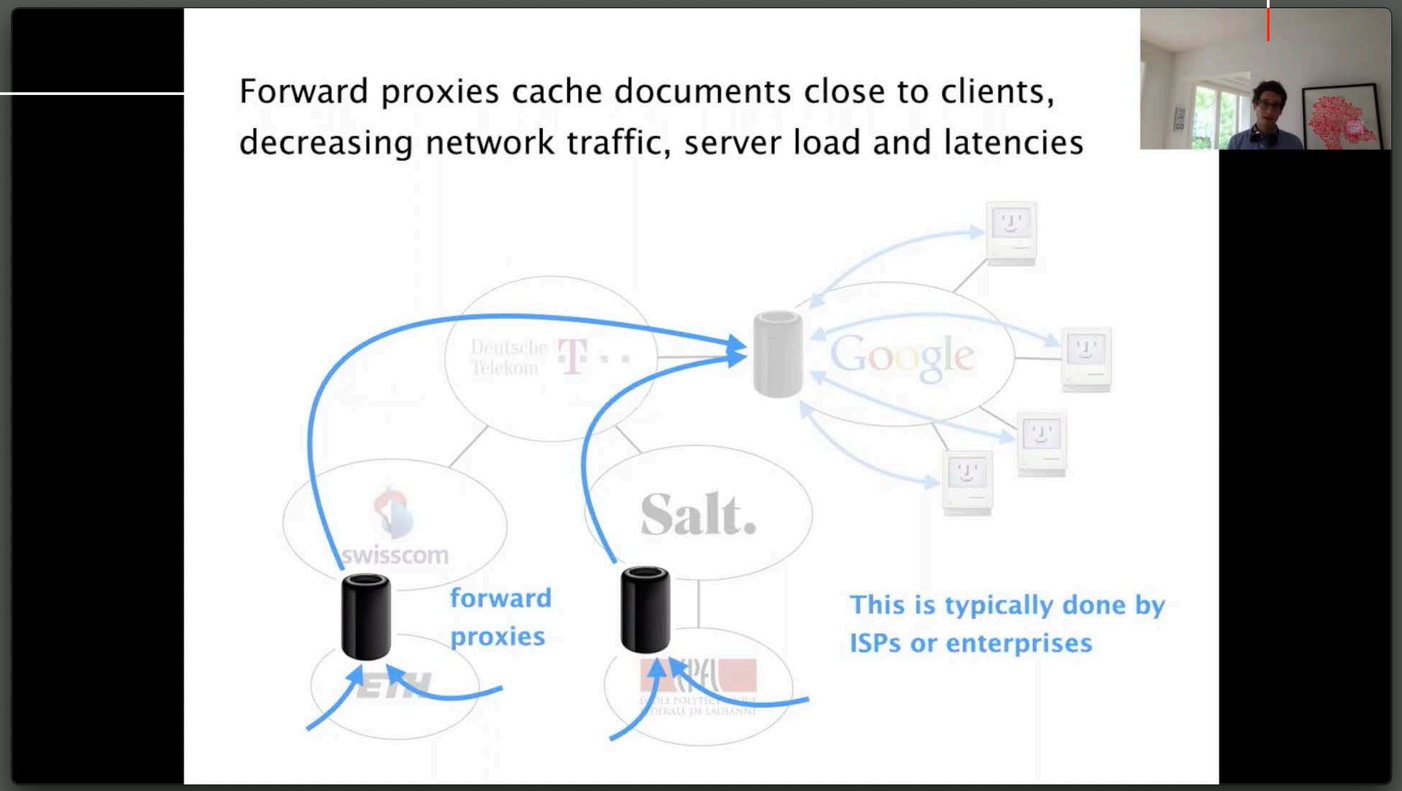
Any ideas on how we could improve going forward?

This made us switch to live, Zoom-based lectures

This made us switch to live, Zoom-based lectures

"default" webcam

"default" slides



Students appreciated the switch,

even though it was *still* suboptimal

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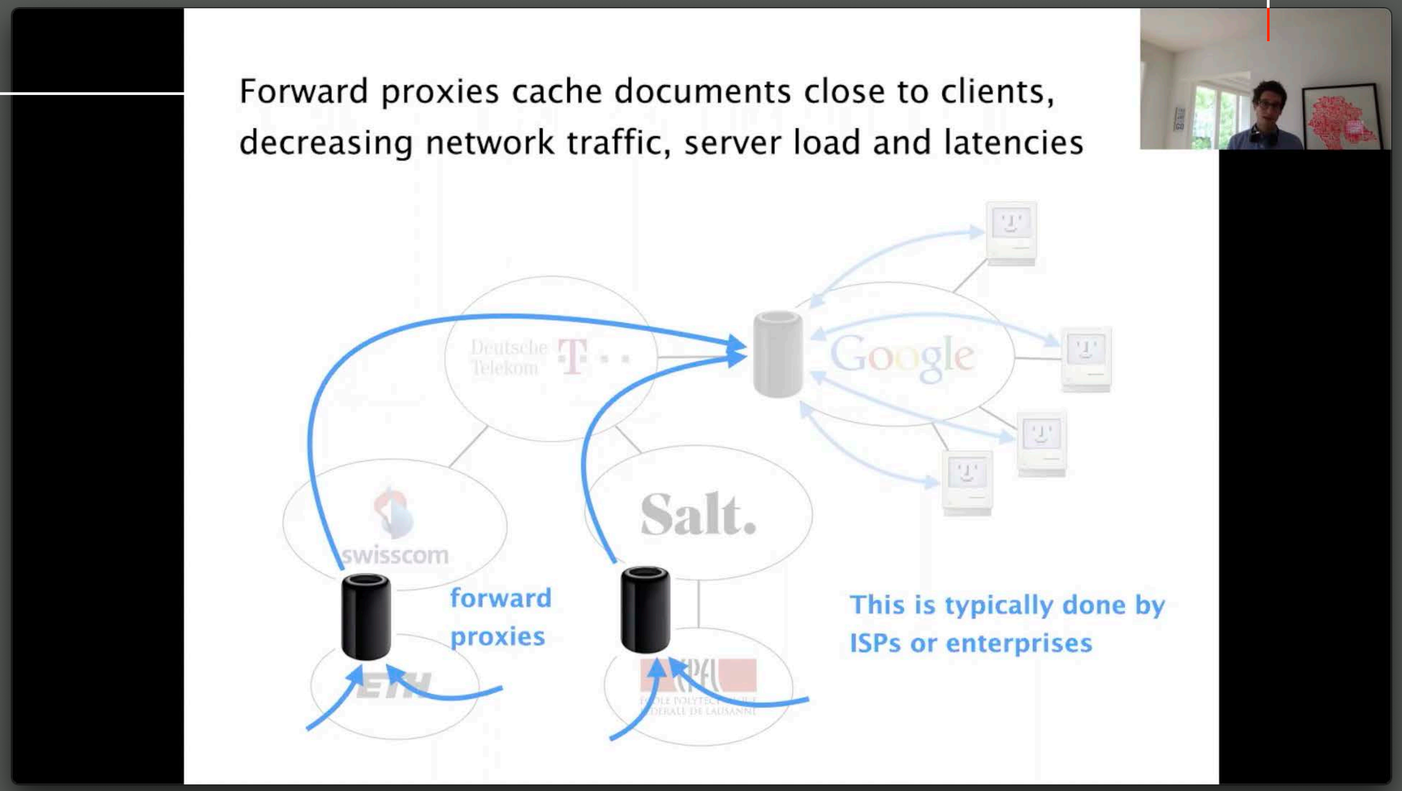
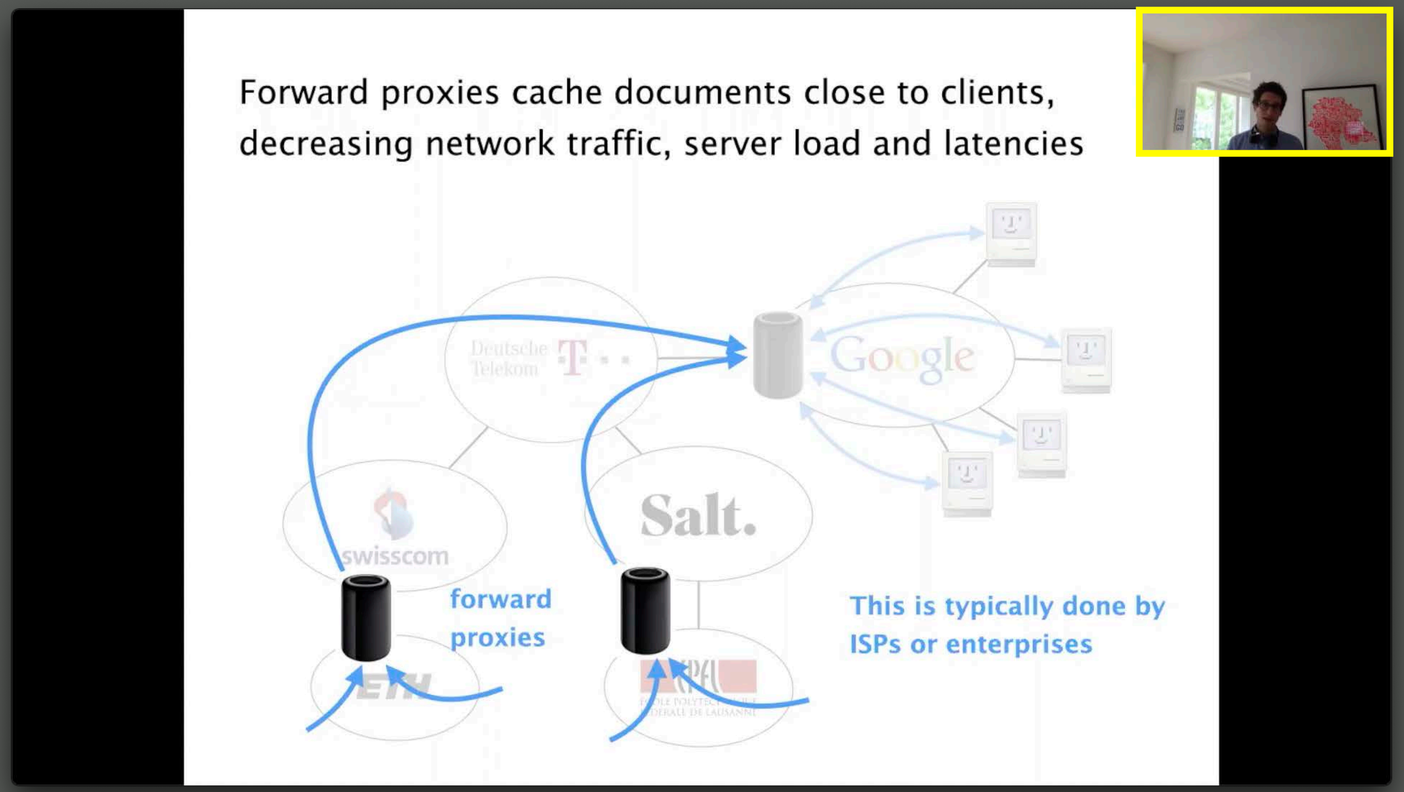
even though it was *still* suboptimal

"default" webcam

"default" slides



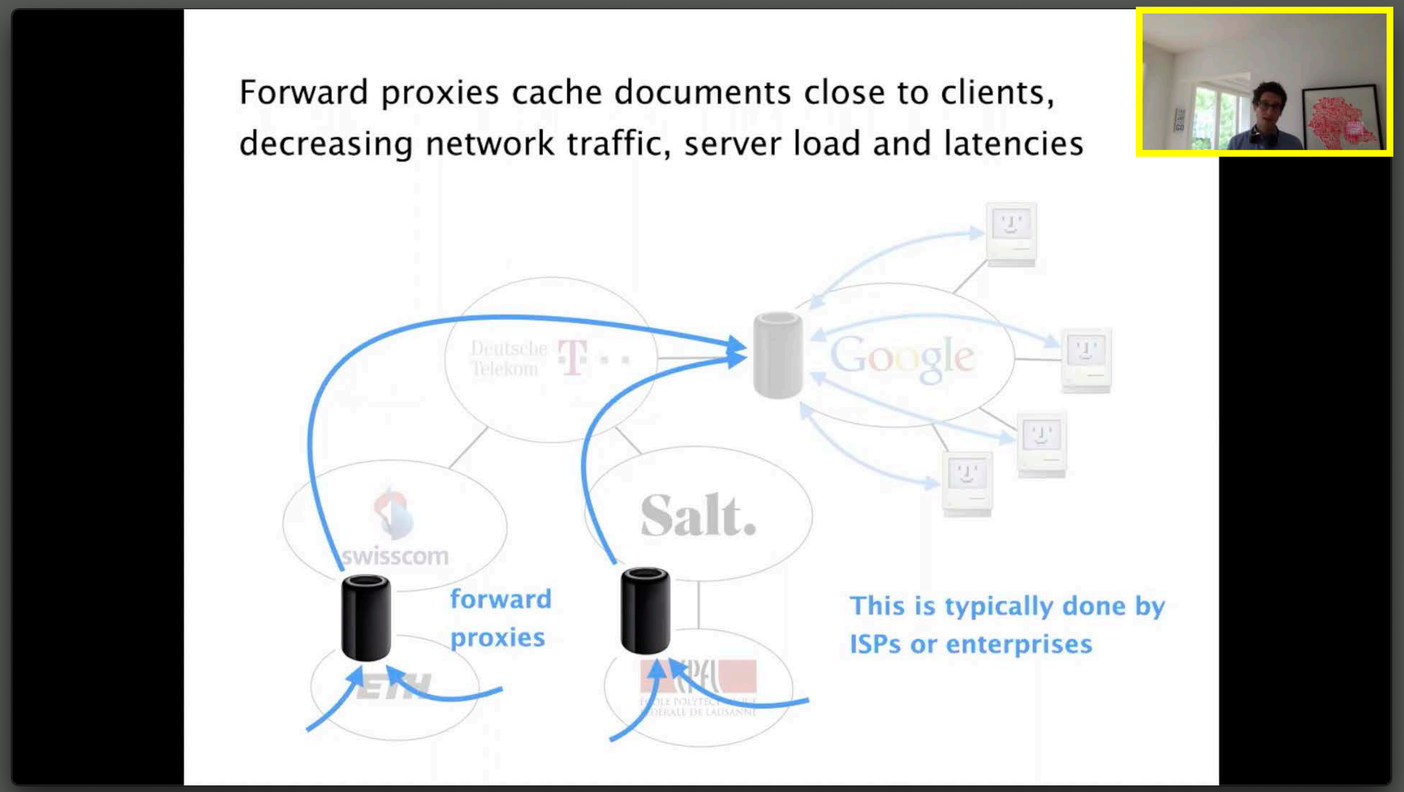
tiny speaker view
poor lighting
distracting background



no more…

body language
facial expression

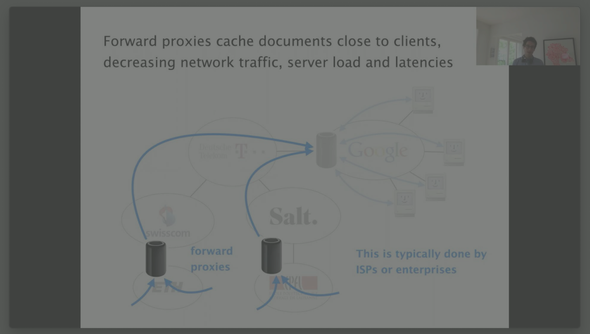
tiny speaker view
poor lighting
distracting background



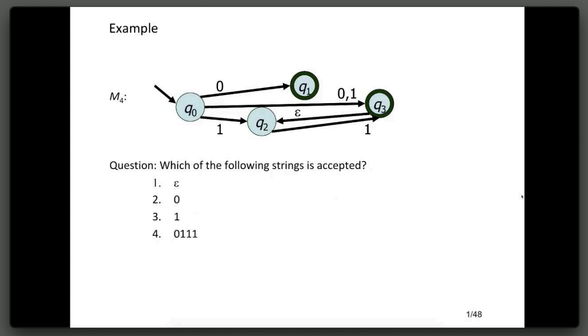
Step 2: Experimenting

Learning from communication experts

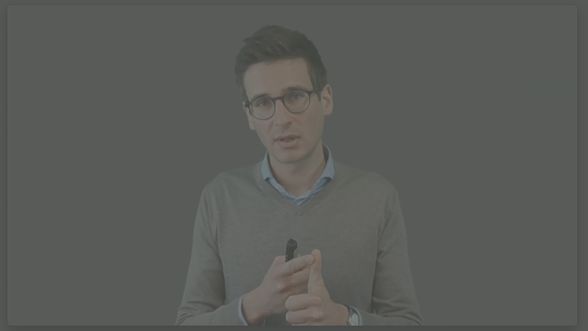
Spring 2020

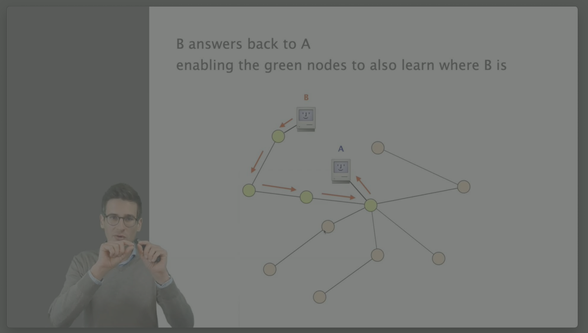


Fall 2020



Spring 2021





In July 2020 I attended a lecture from Jean-luc Doumont on

Delivering your presentation remotely

In July 2020 I attended a lecture from Jean-luc Doumont on *Delivering your presentation remotely*

Freely-available handout on
www.principiae.be

Delivering your presentation remotely

Jean-luc Doumont

When delivering remotely, your main challenge is engaging your audience, which easily gets distracted. At each moment, give them something meaningful to look at and to listen to. In particular, control what the platform allows them to watch: yourself or your slides (perhaps alternating), but nothing else.

Get your audience to

- pay attention to,
- understand,
- (be able to) act upon

a maximum of messages, given constraints

What? So what?

Information ▶ Message

Interpretation

www.principiae.be/lectures
© 2020 by Jean-luc Doumont

To optimize your communication…

First law
Adapt to your audience

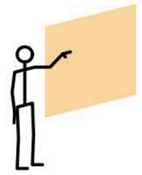
Adapting during the talk is hard: analyze the audience in advance.

Second law
Maximize the signal-to-noise ratio

To focus the audience's attention on the message, don't give them anything else to look at / listen to.

Third law
Use effective redundancy

Oral presentations convey credibility through nonverbal communication



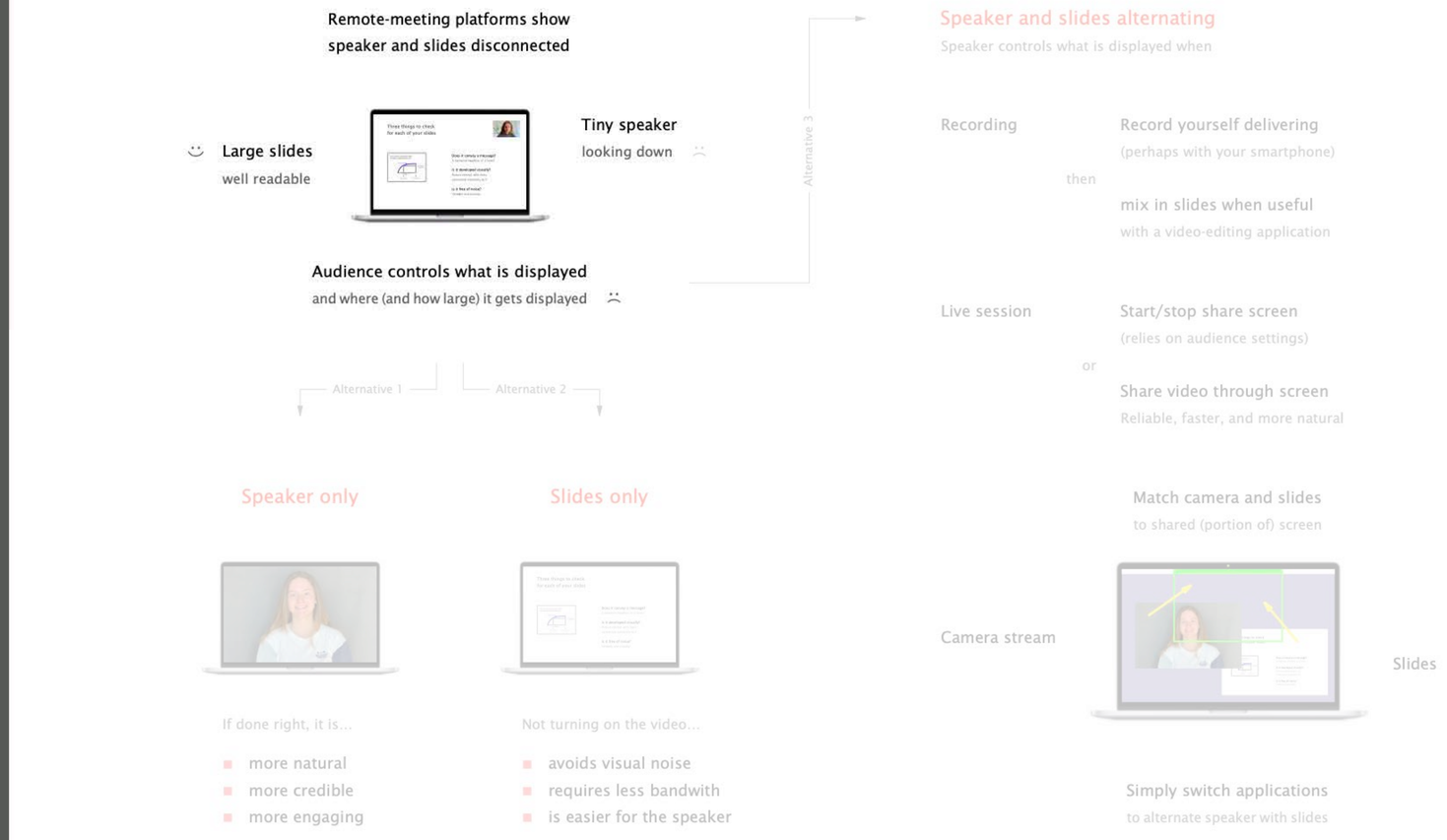
Verbal
Nonverbal Vocal
Visual

Text
Figures Nonverbal

Jean-luc perfectly describes the drawbacks of remote platforms

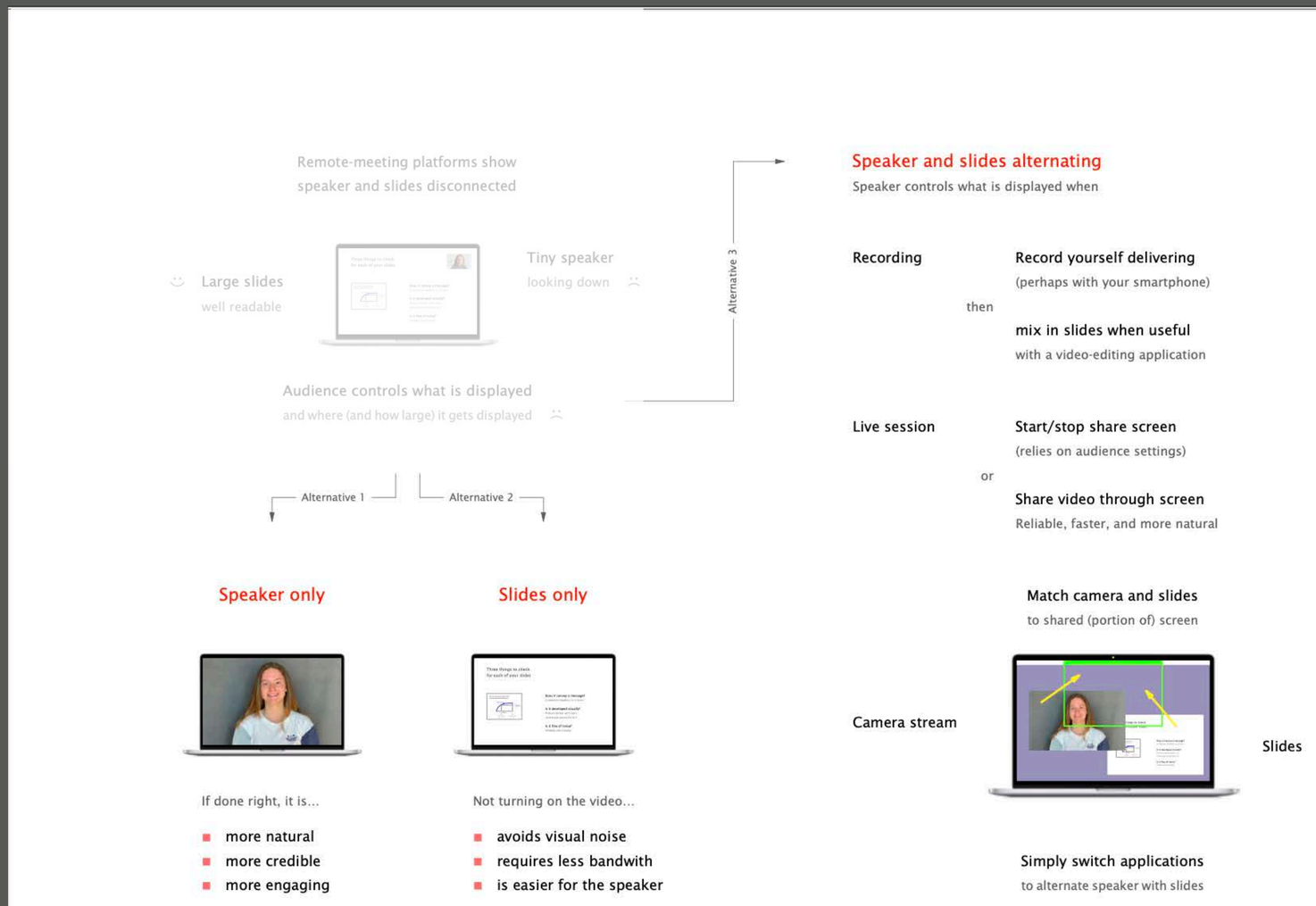
Jean-luc perfectly describes the drawbacks of remote platforms including the loss of control and of non-verbal communication

Freely-available handout on
www.principiae.be



Jean-luc perfectly describes the drawbacks of remote platforms as well as worthwile alternatives

Freely-available handout on www.principiae.be



During the Fall 2020

I decided to give the "alternating views" a shot

During the Fall 2020

I decided to give the "alternating views" a shot

"me" full screen

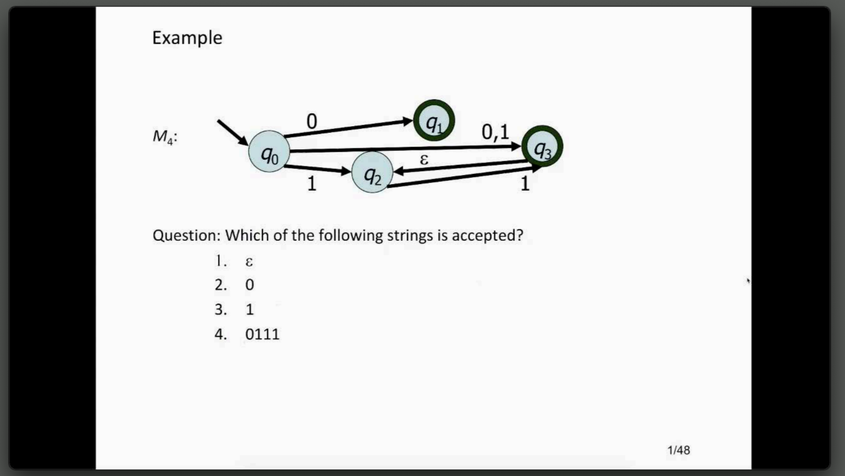
view 1

clicker

shortcut

slides full screen

view 2



Student feedback was good

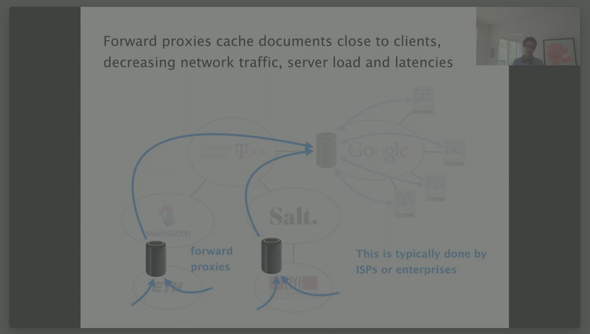
better than in the Spring

Student #1	Prof. Vanbever's video set up was grand, I loved it […]
Student #2	Prof. Vanbever's Zoom-Setup und Unterricht hat grosser Lob verdient (beste Zoom-Vorlesungen die ich in den letzten zwei Semester hatte)
Student #3	It was an absolute joy watching Prof. Vanbever's lectures […]

Step 3: Polishing

Learning from… YouTube?

Spring 2020



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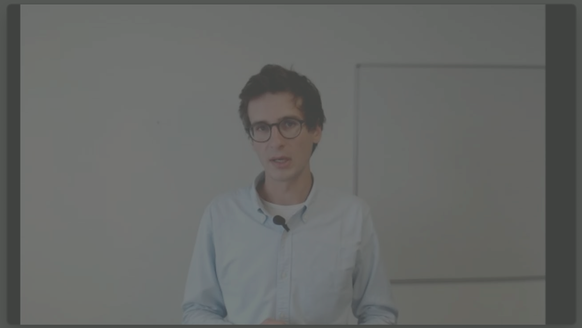
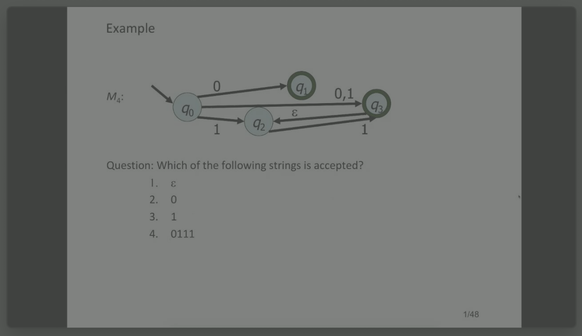
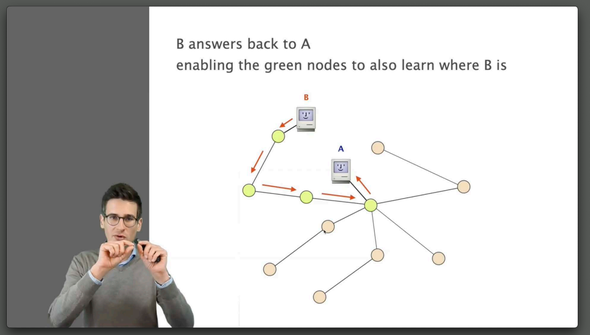


Spring 2021

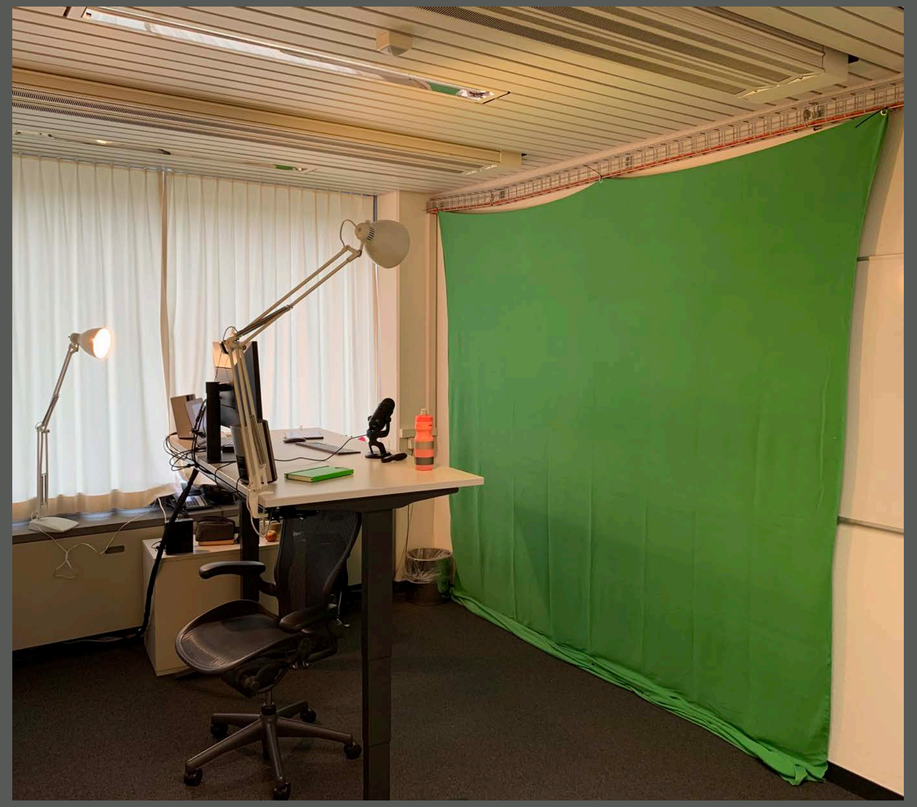




My hardware setup

My hardware setup

behind



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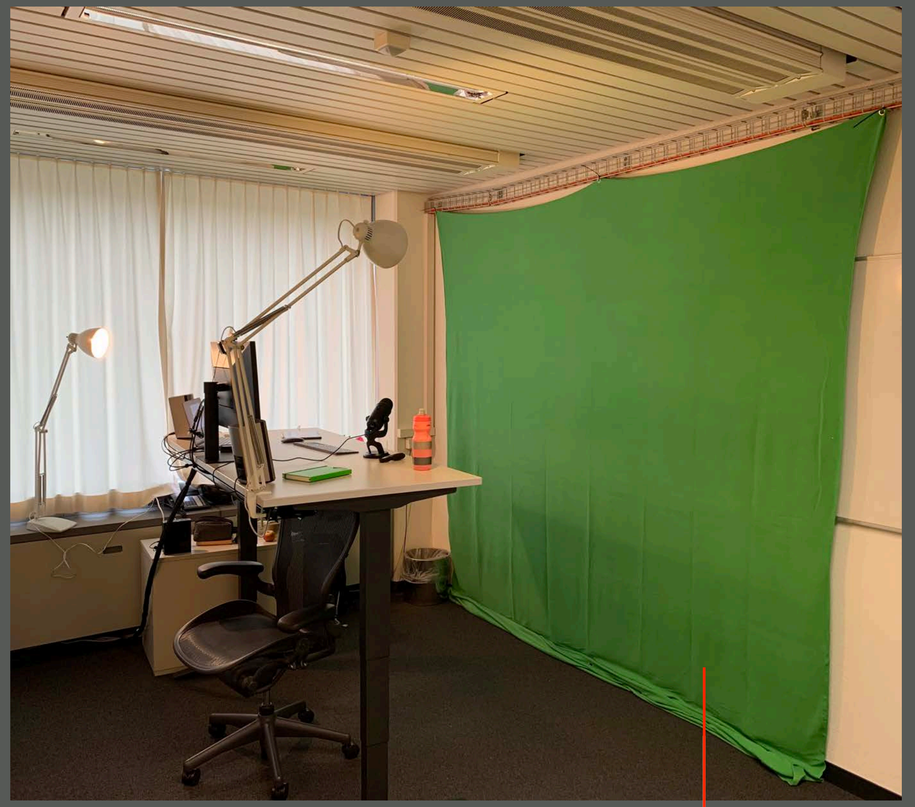


My hardware setup

front

My hardware setup

yellow-ish lights
for my face

studio lights
for the green screen

My hardware setup

My hardware setup

tablet for "blackboard-ing"

My hardware setup

clicker for changing slides

My hardware setup

decent camera (personal one)

Much simpler setup works well too

this is how I started—this gets you 80+% there already

My software setup (I'm a mac user)

My software setup (I'm a mac user)

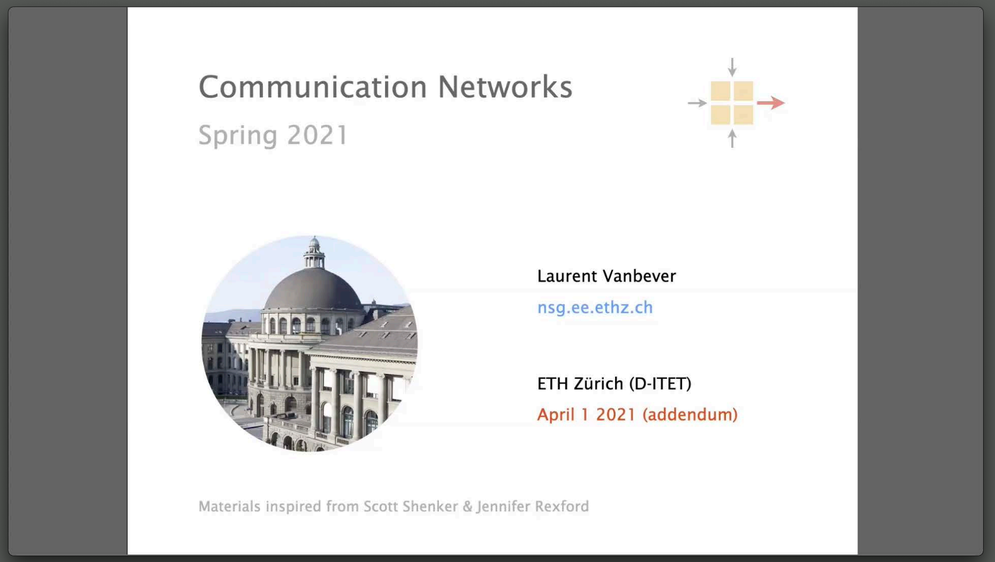
Open Broadcast Software	blends multiple video scenes into one "virtual camera"
Loopback + Audio Hijack	delay the audio wrt the video
Zoom/Teams/Hangout…	meeting platforms

Open Broadcast Software

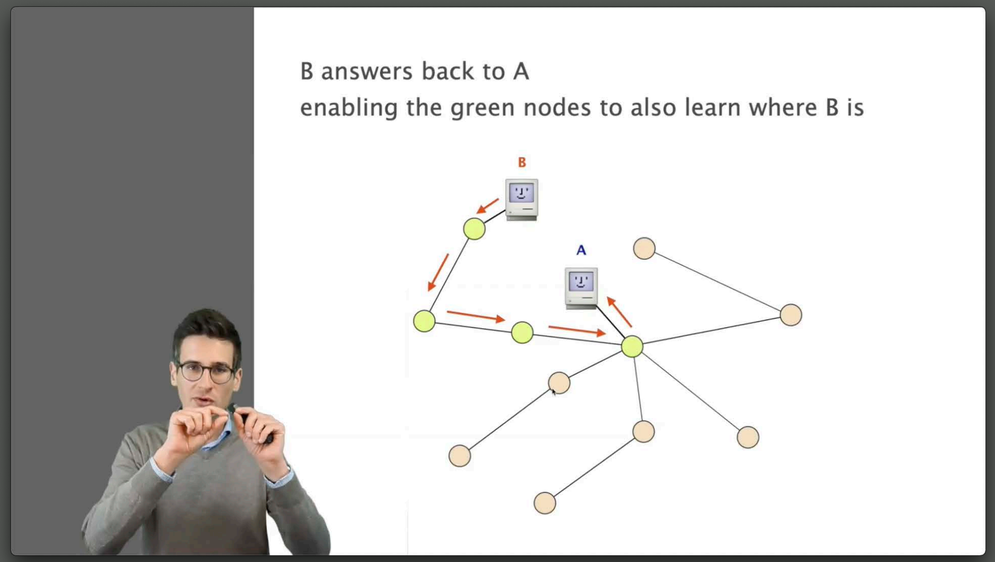
blends multiple video scenes
into one "virtual camera"

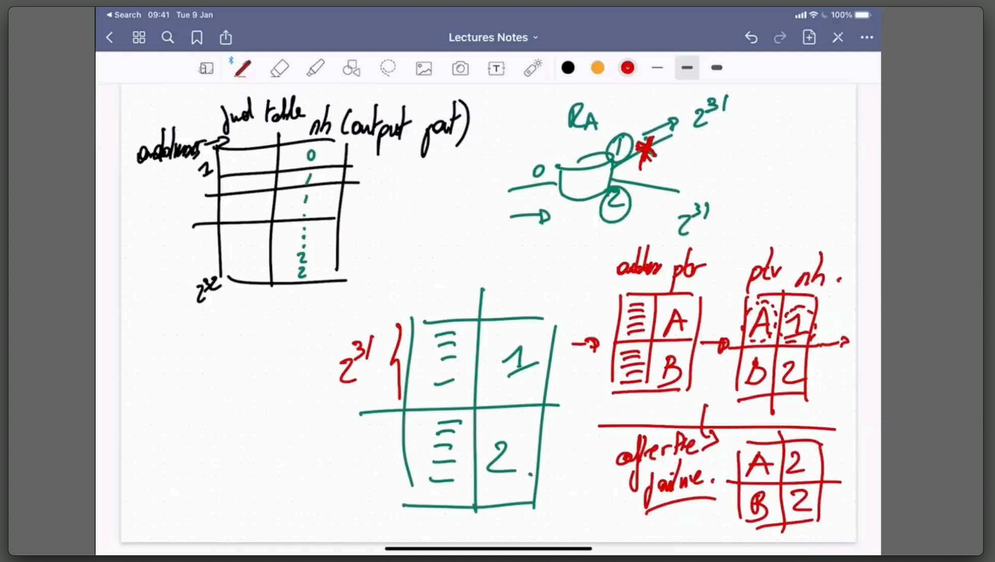
slides only

me only



me + slides





tablet

Few lessons I learned

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Teaching online is more *tiring*

Make sure to be fueled properly

Few lessons I learned

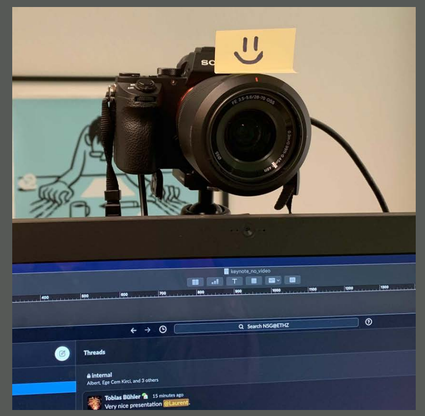
Teaching online is more *tiring*

Make sure to be fueled properly

Maintaining eye contact is key for students' engagement

Stick a friendly face to your camera, it helps a ton

Few lessons I learned



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Few lessons I learned

Teaching online is more *tiring*

Make sure to be fueled properly

Maintaining eye contact is key for students' engagement

Stick a friendly face to your camera helps a ton

Reading from a script doesn't work (for me)

Rehearse only the beginning then go with the flow

Few lessons I learned

Knowing "how to stream" is useful beyond the classroom

See it as a long term investment for you and your team

Few lessons I learned

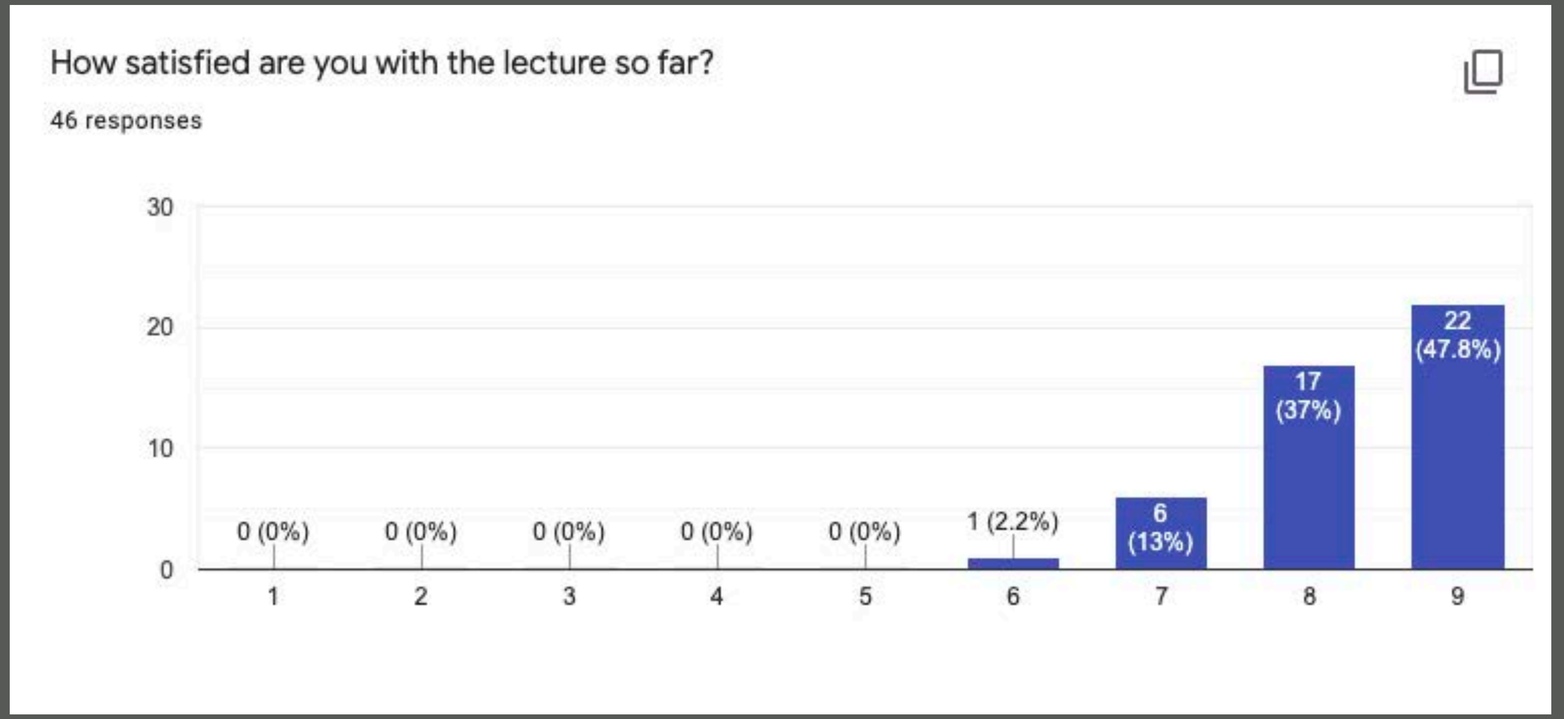
Knowing "how to stream" is useful beyond the classroom

See it as a long term investment for you and your team

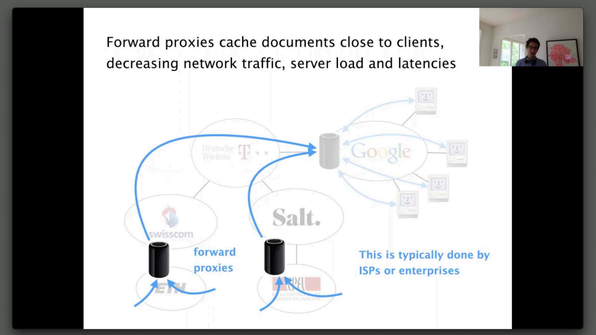
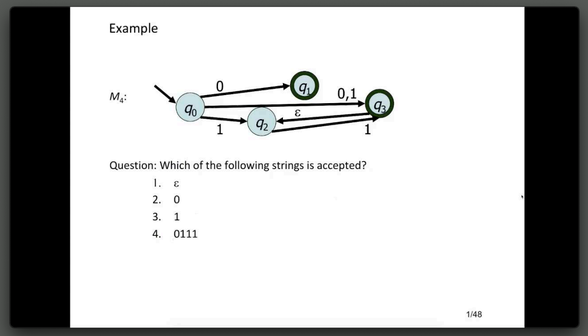
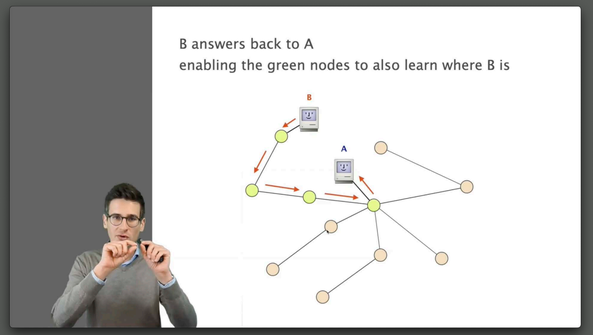
It's actually quite **fun**! ☺

Our student feedback is *even* better now

better than Fall 2020, which was itself better than Spring 2020



Communication Networks 2021 mid-term student survey

Staying engaged—slides, video and the professor

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