(AI) Innovation in (AI) Education Marcus Liwicki Luleå University of Technology



Marcus Liwicki, (AI) Innovation in (AI) Education SUH

SUHF:s årskonferens 2021

Imagine ...

... listens,... ...observes, ...activates

ALTURO

Tak

Back to reality ...



... but we have the right ingredients

Interactive learning approach

 Videos, quizzes, discussions, iMusica

 Technology

 Chatbot, NLP, robots, Computer Vision

 Pedagogical principles realized in courses

 MOOC, Intro AI, Text Mining



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Our interactive learning approach

- Online courses (thought was there before Covid-19
- Video lectures (5-10 minutes), separated in modules
 - \rightarrow Videos and modules can be re-used in other courses
- Quizzes, reflection, and group tasks inbetween
- Complemented with live sessions and labs
- Students can work together in groups
- Effective use of LMS (present, interact, support)
- Automatic evaluation of most tasks
- Peer-review and occasionally individual feedback
- Final oral exam (online or in presence)

TODO: image and reference



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Also available in many other courses

- Intro AI (500 participants every semester)
- MOOC: Introduction to AI for Tourism
- Courses in program (data mining, neural networks, ...)
- Individual lectures selected for life-long learning (soon on youtube)
- Many more ideas coming (high-school material, workshops, ...)

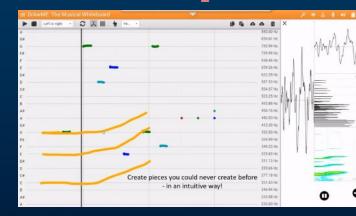


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Integrated STEAM teaching



TODO: 1 min video, replace logo



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We are ready to enhance education with Al



<u>Chatbot as a Learner</u>

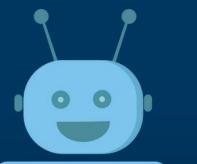
Regular chat conversation with a student, but based on lecture material

Recommend students more relevant learning content by analyzing their learning skills and difficulties

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<u>Chatbot as a TA</u>



Helping in answering queries students generally ask like lesson plans, course modules, assignments, and their deadlines



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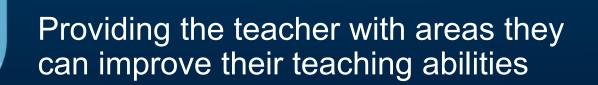
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Chatbot to provide feedback

Identifying the areas that students are lacking and requiring efforts





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