



International Conference
The Future of Education



The Use of AI in Higher Education: The Example of the UX Design Course for eHealth

Robert Pucher¹, Robert Mischak²

¹ Department of Computer Science, University of Applied Sciences Technikum Wien, Austria

² Department of Computer Science, University of Applied Sciences FH JOANNEUM Graz, Austria

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Agenda



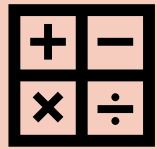
Introduction



Educational Context



Course Structure



Students feedback



Conclusion

Introduction

Course about UX Design in a master's class of eHealth as pilot for AI integrated learning (1st semester)

- Robert Pucher: the expert of UX Design
- Robert Mischak: Head of institute of eHealth

Main Objective:

to develop a procedural model that prepares the students and teachers for the demands of the professional world referring to AI

Introduction – Professional Profiles change

AI tools are changing the world of work. For many professions, but not all

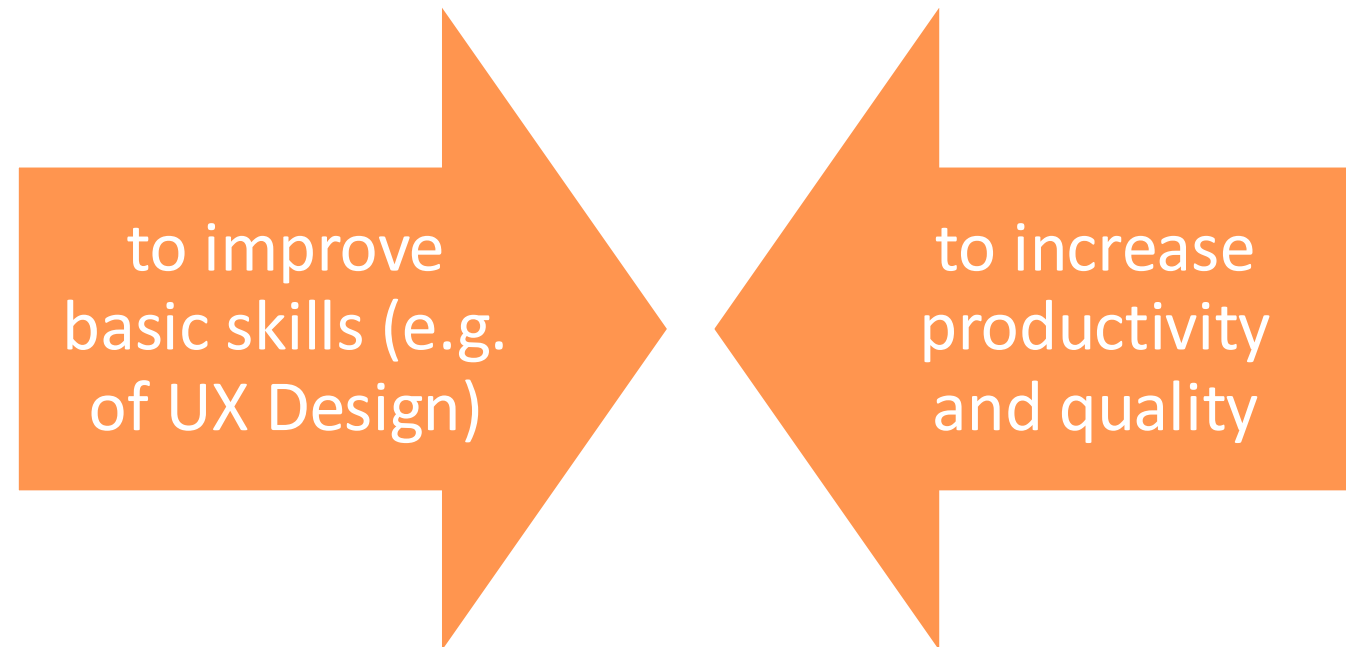
The professional profile – especially of software engineers – has changed enormously

Companies are hiring few junior staff because senior employees substitute them by using AI tools

Juniors cannot gain experience with simpler tasks, but must start at a higher entry-level

It follows that education must also change

- Students (and teachers) must demonstrate a high level of competence in **AI Literacy** and **using AI tools**. Learning objectives are:





Students are not only allowed to use AI tools, they are actually encouraged to do so. Otherwise, they will be graded lower.

There is a Trade-off between ...



Our approach is a blended learning concept integrating AI-supported learningtools

The AI-supported learning environment

- Tool: Google NotebookLM
- About 100 **curated questions and answers** based on Textbooks for UX design and Accessibility:
 - Pucher et al (2024) UXQCC - FL Syllabus: User Experience Certification, Foundation Level Curriculum. Version: 4.0 DE
 - Pucher et al (2025) UX – Psychology (1) - Focus on the Human Being (UX – Psychologie (1) - Der Mensch im Mittelpunkt)
 - Pucher et al (2024) UX Textbook: Foundations of Usability and User Experience (UX Lehrbuch: Grundlagen von Usability und User Experience).
 - and others ...



Educational Context

- The course “UX Design in eHealth” is embedded in a master's program called “eHealth” with two specializations
 - Digital Health Technologies
 - Digital Transformation in Healthcare
- It prepares students for professional roles in the development, evaluation and management of digital health technologies
- Students are from diverse backgrounds, including computer science, healthcare informatics, and health professionals
- Students typically work part-time in industry or healthcare sector alongside their studies ...





The EU Artificial Intelligence Act and universities

- Requirements related to transparency, human-in-the-loop, and AI literacy
- Depend on the role of an university as a provider or deployer of AI systems
- High-risk category: student assessment and admission exams
- Low-risk category: anything else

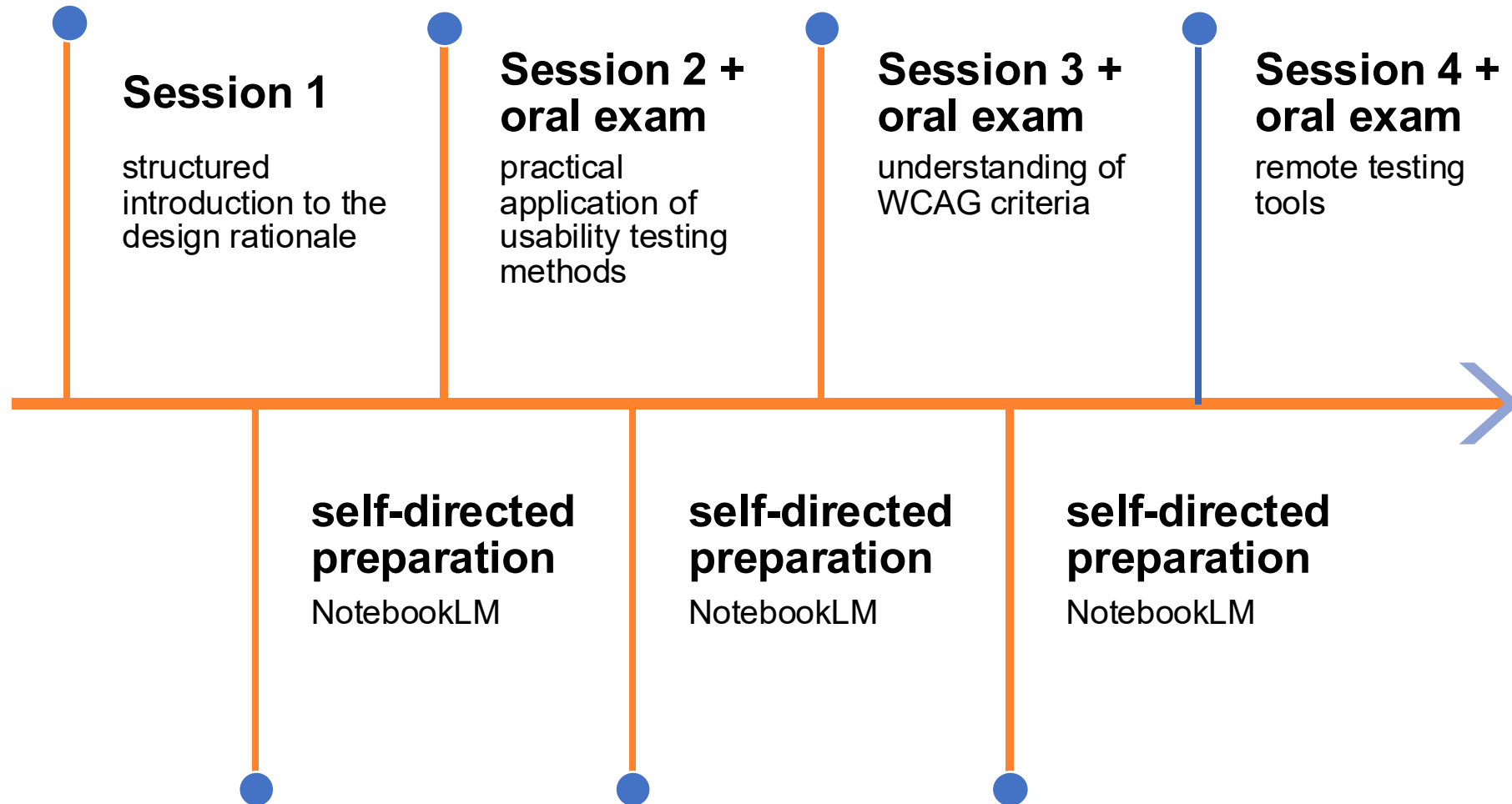
Course Structure

	calculation	hours
Total workload	2.5 ECTS	62.5
- Lectures (in-person sessions)	30 x 0.75 hours	22.5
- Self-directed study		20
- Exam preparation and assessment		20

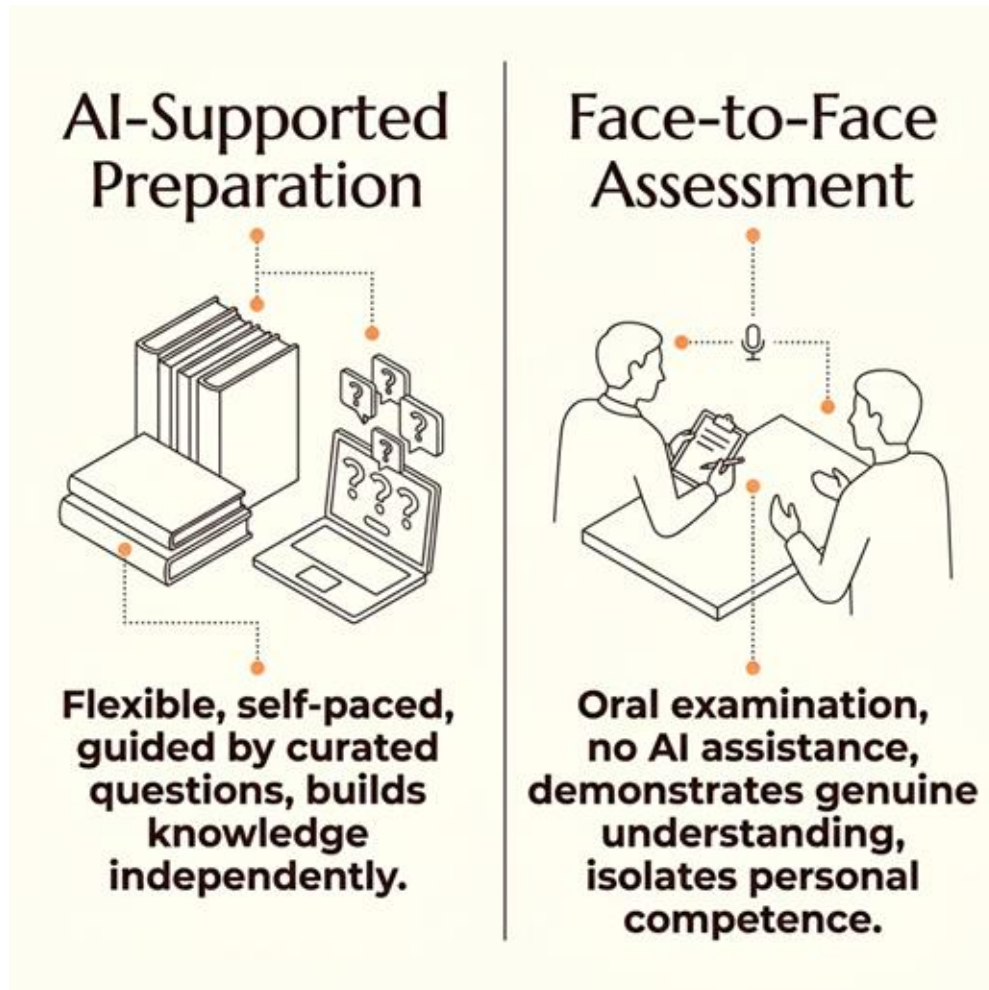
- The course is organized into four in-person sessions
- between which students engage in self-directed preparation using Google NotebookLM
- In-person sessions focus on practical application and assessment

This structure reflects a flipped classroom approach

Overview



The Core Tension



- How do we isolate demonstrated individual competence from AI-assisted preparation?
- Our solution was structural — the **face-to-face oral examination** serves as the integrity mechanism, ensuring that what students know is truly their own.



Thanks to AI the oral examination is back.

Session 1: Display Design

- Introduces students to the course framework
- Assignment of a shared reference object for practical exercises: **display systems used in public transportation**





A tram display taught more about UX than any textbook case study, because every student in the room had already been confused by one.

Session 2: Usability Testing + Oral Exam

Pflege-Entlassungsbrief

Erzeugt am 30. Juli 2015 um 13:01 Uhr | Version: 1

[Inhaltsverzeichnis ausklappen](#) [Alle Inhalte ausklappen](#)

Patient(in): Herbert Mustermann
Geschlecht: unbekannt | geboren am: nicht angegeben | SVN: nicht angegeben
Aufenthalt: Amadeus Spital - Chirurgische Abteilung
Stationär von: 2. März 2013 bis: 25. März 2013

Erstellt von: Amadeus Spital - Chirurgische Abteilung

Risiko
Patientenverfügung vorhanden

Sehr geehrte Frau Kollegin/ Sehr geehrter Herr Kollege

Dies ist ein Beispielbefund. Bei den Inhalten handelt es sich um synthetische Mustertexte und keinesfalls um personenbezogene Echtdaten oder realistische Befunde.

Pflegediagnosen

Titel	Langtext	weitere Informationen	Code/Terminologie
Körperliche Mobilität, beeinträchtigt			50052/POP
Selbstpflege Ausscheiden, beeinträchtigt			50152/POP
Selbstpflege Essen/Trinken, beeinträchtigt			50122/POP
Selbstpflege Waschen/Sauberhalten, beeinträchtigt			50132/POP
Sturz, Risiko			70071/POP

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- Focuses on the practical application of usability testing methods on **eHealth-displays**
- Individual assessment takes place during this session in the form of **face-to-face oral examination questions**



Session 3: Accessibility Evaluation + Oral Exam

- Students learn to apply Web Content Accessibility Guidelines (WCAG) criteria to digital health applications and displays.
- Individual oral examination questions are posed



Session 4: Remote Usability Testing + Oral exam



- Online session (external specialist who is actively working in this field)
- Students discuss how remote testing tools can complement lab-based approaches in practice
- They discuss the topic with the lecturer and an **external expert**



Separating AI-Supported Learning from AI-free practice and assessment

AI: preparation (curated)

No AI: group practice

No AI: oral exam

AI enriches the preparation phase, group work builds applied skills, and the oral examination provides an AI-free window into each student's genuine understanding.

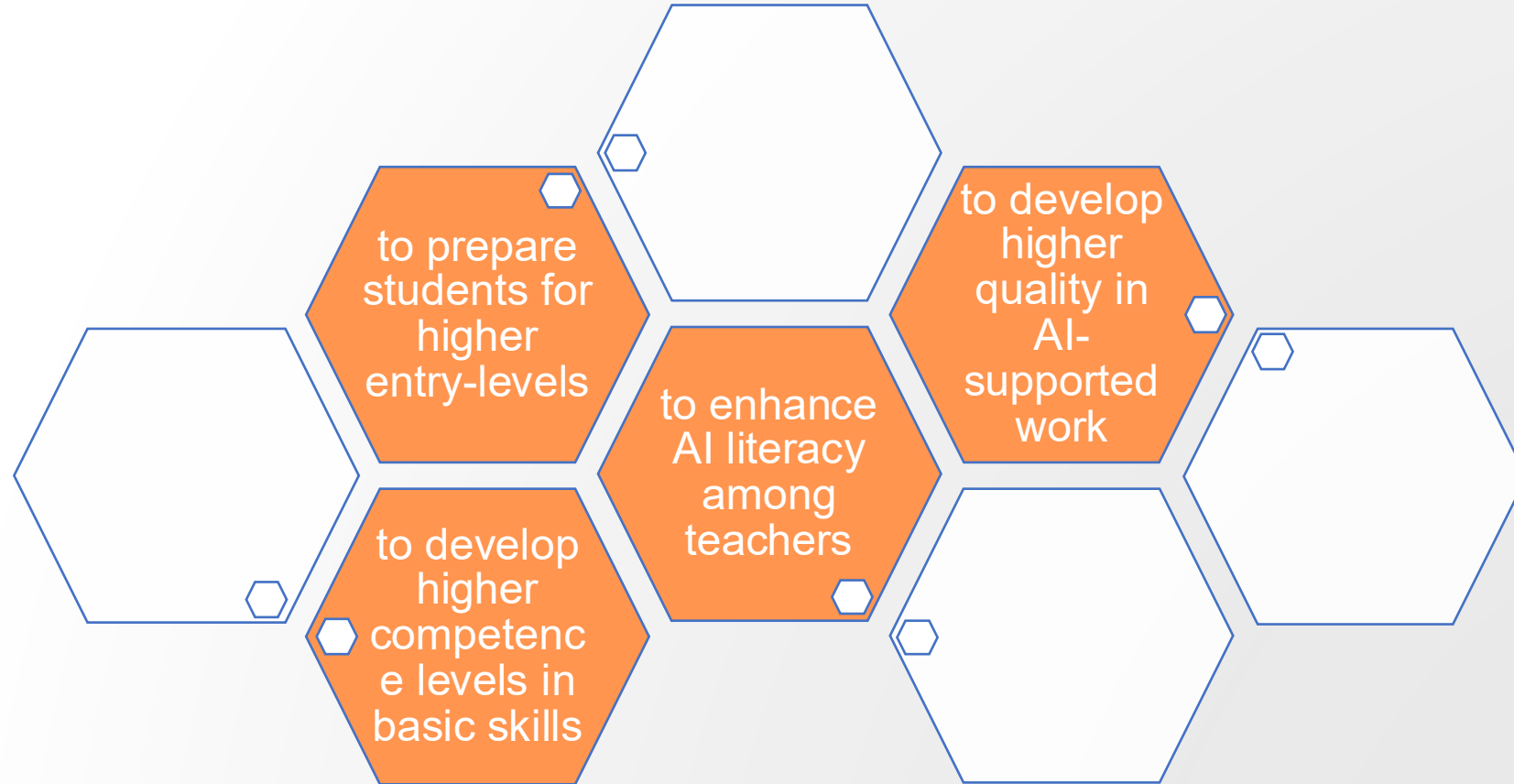
Students feedback



- Practice-Oriented Teaching
- Joint Discussion of Real Examples
- Independent Exam Preparation using Google NotebookLM
- Guest Lecture as a clear added value

Of 23 eligible students, 5 participated in the evaluation, corresponding to a response rate of 21.7%. Overall course quality was rated “very good” by 4 out of 5 students

Conclusion: challenges are ...



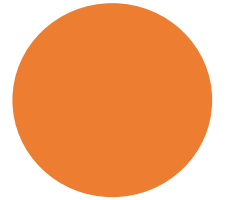
Our concept seems promising and we will develop it further.



AI didn't make our course easier — it made learning deeper. The technology freed up classroom time for exactly what AI cannot do: think together.

Contact

- robert.pucher@technikum-wien.at
- robert.mischak@fh-joanneum.at



*) AI was used to generate some illustrations