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Digital Teaching
and Learning



Gergely Rakoczi

TU Wien
Digital Teaching and Learning
Austria
gergely.rakoczi@tuwien.ac.at

The Future of LMS platforms

What will be the challenges, roles and opportunities for decades to come?

New era

- Different e-learning world since Corona
- Many developments
- New focus in the University structure

- Goal of this talk: provide a picture of key aspects of the future LMS



Overview



My background - our LMS

- Moodle (TUWEL = **TU** **W**ien **E**-Learning)
- 17 years in service
- 30.000 active users per year
- Large installation – central & official platform
- We try establish it as the central digital learning system!



The screenshot shows the homepage of the TUWEL LMS. At the top, there is a navigation bar with the TUWEL logo and a 'Hilfe' (Help) link. Below the navigation bar is a large banner image with a hand pointing at a glowing square, and the text 'Lernplattform der TU Wien'. Below the banner are three main content blocks: 'Login for TU Wien' with a 'TU Wien Login' button, 'Hilfe & Support' with links to documentation and support, and 'Login for external users' with a login form. At the bottom, there is a footer with copyright information and links to data protection and AMC information.



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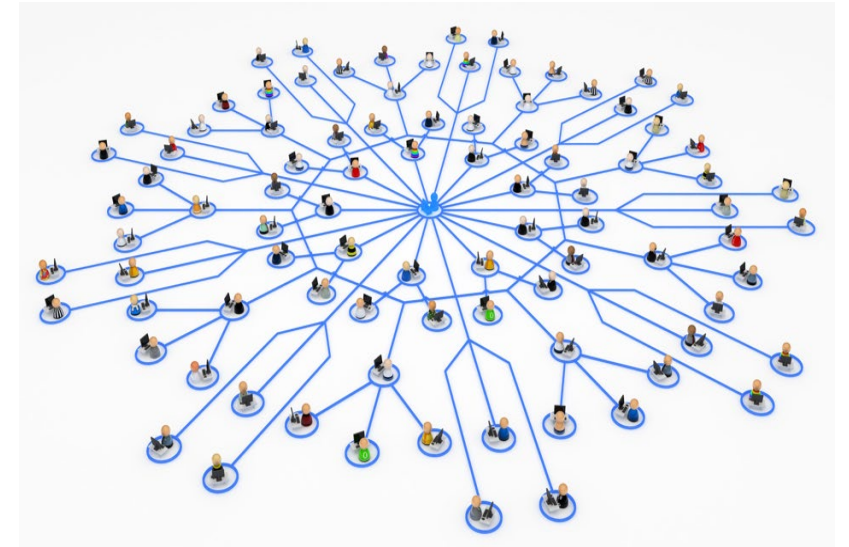
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Key aspects of future LMS

Now go through one-by-one ...

Future role?

- Hopefully a „*central hub*“
(Zoom, recordings, content, etc. all in one place)
- Entry point for digital teaching
- Interlinked tools
(based on international standards)



Artificial intelligence

- Great expectations / potential
- More personalized learning
- AI-boosted tutorial systems (e.g. forum)
- Easier content creation
- Re-thinking e-assessment (e.g. will seminar papers “die”?)



New AI Tools every day?

Finding AI tools

<https://www.futurepedia.io/>
<https://www.advanced-innovation.io/ki-tools>
<https://cogniwerk.ai/>

Generate images:

<https://www.midjourney.com/>
<https://stablediffusionweb.com/>
<https://stablediffusionweb.com/ControlNet#demo>

Generate texts:

<https://chat.openai.com/auth/login>
<https://smodin.io/de>

Audio out of text:

<https://ttsfree.com/>
<https://beta.elevenlabs.io/>
<https://murf.ai/>

Videoavatars out of text:

<https://www.synthesia.io/>
<https://www.d-id.com/>

Create presentations:

<https://www.slidesai.io/de>

Generative AI
Curated by @EtherSiim

- Text-to-Image (T2I):** DALL·E 2, Stable Diffusion, craiyon, Jasper, Imagen, Midjourney, NightCafe, GauGAN2, Wombo, Wonder, pixray-text2image, neural love
- Text-to-Video (T2V):** runway, FLIKI, synthesisia, Meta AI, Google AI, Phenaki
- Text-to-Audio (T2A):** Play.ht, MURF AI, RESEMBLE.AI, WELLSAID, descript
- Text-to-Text (T2T):** Simplified, Jasper, frase, ZleutherAI, Requestry, grammarly, copy.ai, MarketMuse, AI21 labs, HubsSpot, InferKit, GooseAI, WriteSonic, cohere, CHIBI, Ideas AI, copysmith, Flowrite, MICHESS\$, sudo write, ideasbyai, text.cortex, OpenAI GPT-3, Blog Idea Generator
- Text-to-Motion (T2M):** TREE, MDM: Human Motion Diffusion Model
- Text-to-Code (T2C):** zepit Generate code, GitHub Copilot
- Text-to-NFT (T2N):** LensAI
- Text-to-3D (T2D):** DreamFusion, CLIP-Mesh, GET3D
- Audio-to-Text (A2T):** descript, AssemblyAI, Whisper
- Audio-to-Audio (A2A):** AudioLM, VOICEMOD
- Brain-to-Text (B2T):** speech from brain, non-invasive brain recordings
- Image-to-Text (I2T):** neural love, GPT-3 x Image Captions

AI Category Guides

Video	Supercreator.ai, tavus, windsor
Images	STOCKING.AI, Midjourney, Dreamer
Text	ChatGPT, Notion AI, Jasper
Research	Bearly, scholarcy, Bearly
Design	Looka, Galileo AI, uizard
Presentations	SlidesAI, Ollie, MURF AI
Audio	Whisper Memos, soundful, steno
Productivity	Nanonets, lumen5, jenni

The best AI Tools To Boost your online Income
(Save this post)

- Solves anything
- Writes Anything
- Create Talk Avatar
- Autom8 Social Media
- Write Essays
- Note Taking
- Text to Speech
- Track time
- Rewrite anything
- AI Chatbot
- Auto Copywriting
- Write Sales Email
- AI assistant
- ChatGPT
- Copy.ai
- Synthesis.io
- Do not Pay
- Mid journey
- Repurpose
- Jasper Ai
- Fireflies
- Descript
- Timely
- Quillbot
- Kuki
- Copy
- Addy Ai
- Andy Ai

Virtual reality

- Immersive and interactive learning experiences
- Haptic experiences
- New virtual rooms / labs / social meeting points for exchanging with peers



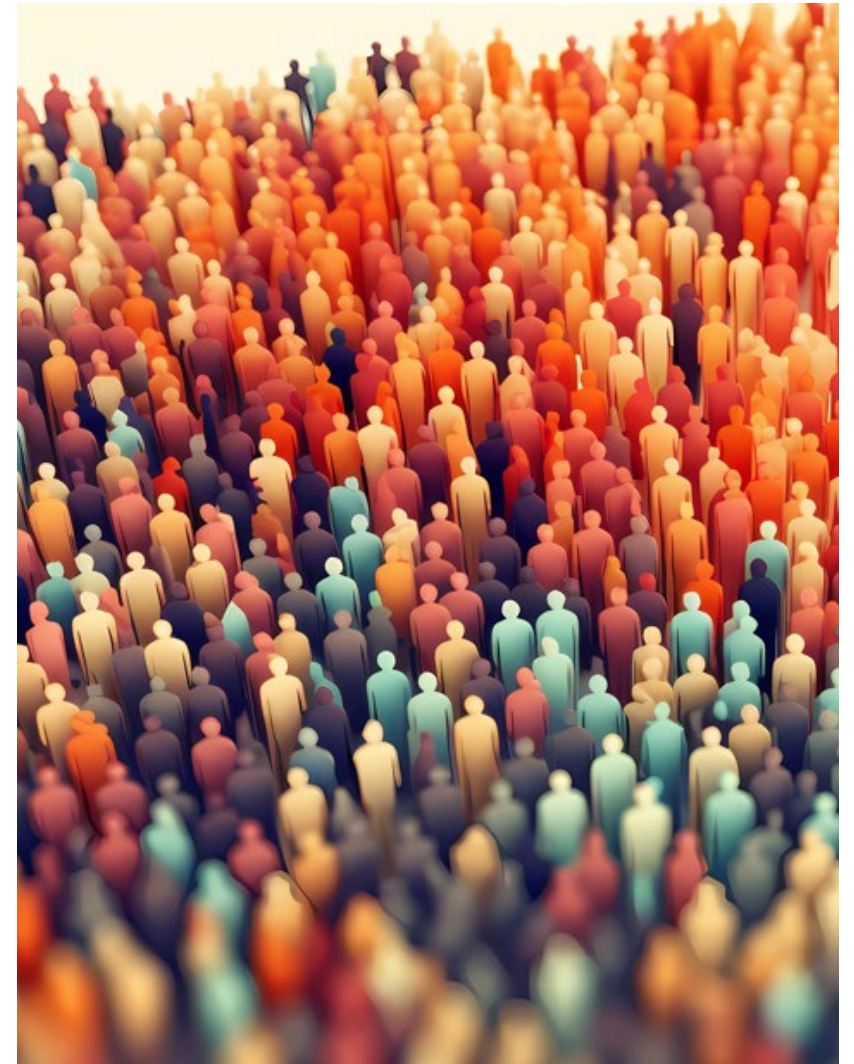
Inclusion, accessibility

- Faster better transcoding
- Learning without language barriers (example: live audio translation with same voice model as the speaker)



Usability

- User-centered / tailored design
(„I want to see this pdf as a video!“)
- Automated (pedagogical) nudging
- (finally) supporting individual needs and skills



Scalability

„To be honest, current hybrid settings are the worst for our teachers!“

- Better support for different learning settings (remote, on-site, hybrid, etc.)
- Dependencies to hardware should be decreased
- Big data / improved analytics / blockchain
- And of course: sustainable and green service operation!





The dreams are big!

Hope for a better (learning) world!





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Thank you for your attention!

Questions?