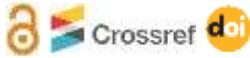




Reconceptualizing The Role of University Educators in The Age of Artificial Intelligence

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Abstract

Higher education plays a pivotal role in shaping individuals' intellectual and professional development. In an era characterized by rapid technological advancements, it is crucial for universities to adapt their curricula to equip students with the skills necessary for the future. These skills, often referred to as "future skills," encompass a set of competencies inclusive of digital literacy, which comprise a range of skills, knowledge, and competencies that enable individuals to access, evaluate, create, and communicate information using digital tools (Ehlers 2020; Schüller et al.2019:).However, the rapid spread of AI is raising the question for many universities as to which core skills students actually still need and what AI can do for them. (Wannemacher & Bodmann 2021). ChatGPT has become a normality and there are a multitude of similar AI's. On a didactic level, many university teachers feel that their role is being sensitively disturbed by AI-based tools. If technical questions can also be posed to the AI or technical discussions can be held with ChatGPT, who still needs the expertise of university lecturers? The paper takes up this, deliberately striking question, by critically analyzing the classical understanding of education at universities. As a counter-proposal, a co-constructive educational framework is introduced, which enables educators to change their role (Weimann-Sandig 2023b). The main difference between constructivism (Vygotskij 1964) and co-constructivism lies in the emphasis on the social element, i.e. a two-way teaching-learning relationship. While constructivism focuses on individual learning, co-constructivism emphasizes the importance of joint construction of knowledge in social contexts. In the co-constructivist concept, lecturers also become knowledge recipients and continue to educate themselves through the input of their students (Weimann-Sandig 2023b).

Keywords: AI, higher education, higher education didactics, role of educators

Introduction

In recent years, AI has gained significant traction in education, with its potential to personalize learning and provide timely feedback to students and assist them in their learning journeys. (Crompton & Burke 2023). These advancements and their increasing integration into educational practices have sparked debates and discussions about their impact as well as reshaping the role of educators in the process. This

paper aims to explore how the use of AI is changing the role of educators at universities and argues that this transformation is not inherently negative but rather presents new opportunities for enhancing the learning experience. Traditionally, educators have played a central role in facilitating learning, imparting knowledge, and guiding students' academic growth. However, the integration of AI technologies has led to a shift in focus, with



educators now assuming more facilitative and mentorship roles (Weimann-Sandig 2023a). It argues that the use of AI in education can lead to improved learning outcomes and enhanced pedagogical practices.

Review of Literature: Definition and Overview of AI in Higher Education

Artificial Intelligence (AI) encompasses a range of technologies and methodologies that enable machines to mimic human intelligence and perform tasks that traditionally require human cognition. Natural language processing allows machines to facilitate communication between students and AI-powered educational tools. Generative artificial intelligence and intelligent tutoring systems are both technologies based on AI, but they have different areas of application and also influence the teaching and learning behavior of students and teachers differently. The best-known generative AI system is certainly ChatGPT.

Intelligent Tutoring Systems (ITS) use specialized AI to provide personalized learning. The great advantage of intelligent tutoring systems lies in the documentation and simultaneous analysis of students' learning progress. It makes learning deficits visible and suggests ways of compensating for these deficits. Eventually, students can then use examination tasks to show the extent to which they have been able to close the gaps in their knowledge.

Nevertheless, the attitude of many university lecturers is divided when it comes to the achievements of AI. Looking at the debates, there have been bans on the use of generative AI by students at some universities. While the integration of AI in education brings numerous benefits, it also presents certain challenges and concerns that need to be addressed for responsible implementation. The ethical, legal dimension of the use of AI, concerns about data protection and privacy are immense challenges. There is a need for transparency and accountability in AI algorithms to mitigate biases and ensure fair and equitable outcomes. Another concern associated with AI in education is the potential reduction of human interaction and social

learning experiences (Ayala-Pazmiño 2023). AI cannot fully replicate the benefits of face-to-face interactions with teachers and peers. Human interaction fosters social skills, collaboration, empathy, professionalized communication, action strategies which are essential for holistic development. Digital Tools can provide the basic framework, but they can never do justice to the complexity of human need constellations. (Weimann-Sandig 2022).

Interpretation & Discussion

Traditionally, educators have held a central role as the primary source of information and knowledge dissemination, classroom instruction, facilitating learning and assessment. However, the integration of Artificial Intelligence (AI) technologies in education is transforming this traditional role, challenging the existing notions of teaching and learning. Students are doing their own research and using generative AI systems such as ChatGPT for this purpose. As a result, many lecturers feel that their knowledge advantage is increasingly being called into question. In terms of a professional self-image or a professional claim in the traditional context, this is entirely understandable. University lecturers in particular, who conduct a great deal of their own research, define themselves as repositories of knowledge through this accumulation process. In fact, information and knowledge are two related but distinct concepts: information refers to data or facts presented in a specific form. Knowledge refers to the understanding and interpretation and application of information.

Knowledge is a complex network of information built through experiences, learning, and reflection. It encompasses not only what we know but also the ability to apply, expand, and update that knowledge. In fact, analyses of teaching concepts and forms of teaching show that, teachers mostly only provide information, but often fail to generate knowledge.

The spread of generative AI systems therefore shows us what can be replaced and what university lecturers actually stand for. Researching information – contextualizing and systematizing information



which students can accomplish with AI but need guidance from lecturers. University lecturers will therefore not become superfluous through the use of AI, but their role, their teaching formats and examinations will have to change.

The classic concept of the lecturer is always based on the image of a homogeneous student body. The importance of the role of university lecturer arises from the didactic diversity of real knowledge transfer. Promoting critical thinking and problem-solving skills is not only a central goal of higher education, but also essential future skills (Ehlers 2020; Schüller et al. 2019). Intelligent tutoring systems can provide personalized feedback, adaptive scaffolding and guided practice, promoting deeper engagement and metacognitive skills (D'mello et al. 2013). AI can immerse students in authentic problem-solving scenarios, allowing them to apply their knowledge and analytical abilities in realistic contexts (Sung et al. 2016). The role of university lecturers is to encourage students to use these new opportunities or to test them together. The spread of AI in university teaching is uncharted territory for students and teachers alike, and universities must therefore create new opportunities and testing grounds for teachers so that creative learning formats can be established. Many universities offer research sabbaticals but no teaching sabbaticals. Lecturers are featured with limited interactivity and individualization with their students. AI technologies challenge this traditional lecturer-centered approach by enabling more student-centered and personalized learning experiences (Weimann-Sandig 2023a). However, this can only succeed if the universities offer their teaching staff innovative test rooms.

Innovative Test Rooms of The Future – A Possible Scenario

In order for knowledge transfer to be successful in university teaching, despite or even because of AI, we need to move away from traditional teaching formats. Information does not have to and should not be provided in lectures, as there are too many rich, AI-supported sources available today. Lecture times can be used for working on cases or examples in

groups, where students have to prove that they can contextualize and analyze information in a peer-to-peer process. The wealth of digital tools also allows us to move from face-to-face teaching to the digital space or to rely on a combination of both. One approach to this is the establishment of Scholarships of Teaching and Learning. Scholarships of Teaching and Learning (SoTL) are an approach where educators systematically investigate their own teaching to improve student learning and develop new teaching formats (Almeida 2010; Felten 2013). For this to succeed, universities need to create new structures. First of all, teachers need incentives to break out of their daily routine and embrace something new. Universities can create incentives to encourage participation in SoTL. This may involve recognizing SoTL activities in relation to promotions, tenure processes, or teaching awards. Providing financial support, research grants, or course releases for SoTL projects can also offer incentives. It is important to establish SoTL as an integral part of the teaching culture at universities (Felten & Chick 2018) by integrating SoTL into faculty development programs and trainings, creating platforms for the exchange of findings and best practices, and establishing networks and collaboration opportunities among faculty and disciplines. And an essential component should not be neglected: scholarships of teaching and learning must not be conceived without the students in mind, but must be designed together with them. Student participation in the sense of students as partners (Cook-Sather, Bovill & Felten 2014) is an important milestone here. After all, it is precisely about creating activating teaching formats that are geared towards the needs of the students. Social-constructivism emphasizes the meaning of interaction and stresses, that cultural contexts play a critical role in learning (Vygotskij 1964). In addition, a sub-strand has derived from this strand, which is called Co-Constructivism. The main difference between constructivism and co-constructivism lies in the emphasis on the social element, i.e. a two-way teaching-learning relationship. While constructivism focuses on individual learning, co-constructivism emphasizes the importance of social interactions and the joint construction of knowledge in social



contexts. In the co-constructivist concept, lecturers also become knowledge recipients and thus continue to educate themselves through the input of their students (Weimann-Sandig 2023b).

Conclusion

The transformation of educators' roles through AI requires a paradigm shift in the traditional understanding of teaching. Educators need to embrace the potential of AI to enhance their teaching practice and adapt their roles to become facilitators, mentors, and orchestrators of AI-driven learning environments. This shift requires educators to adapt their pedagogical strategies, embrace new roles, and develop skills in effectively utilizing AI tools in their teaching practice. AI integration in education should be seen as an opportunity for professional growth and innovation. In order for this to succeed, universities must provide their teaching staff with more freedom and scope to try out innovative teaching methods. SoTL enables educators to improve student learning outcomes, develop evidence-based teaching strategies, and contribute to the scholarship of teaching. By examining the integration of AI into higher education through SoTL, universities can harness the potential of AI technologies to enhance student learning experiences.

References

- Almeida, P. (2010). Scholarship of Teaching and Learning: An Overview. *Journal of the World Universities Forum*. 3. 143-154. DOI:10.18848/1835-2030/CGP/v03i02/56669.
- Ayala-Pazmiño, M. (2023). Artificial Intelligence in Education: Exploring the Potential Benefits and Risks, May 2023, 593 *Digital Publisher CEIT* 8(3):892-899. DOI:10.33386/593dp.2023.3.1827.
- Chen,X.; Xie,H.; Zou,D.; Hwang,G. (2020).Application and theory gaps during the rise of Artificial Intelligence in Education. *Computers and Education: Artificial Intelligence*, Volume 1, 2020, 100002, ISSN 2666-920X, <https://doi.org/10.1016/j.caeai.2020.100002>.
- Cook-Sather, A., Bovill, C., & Felten, P. (2014). *Engaging Students as Partners in Learning and Teaching in Higher Education: A Guide for Faculty.*: Jossey-Bass. Advance online publication. <http://eu.wiley.com/WileyCDA/WileyTitle/productCd-1118434587.html>
- Crompton, H.; Burke, D. (2023). Artificial intelligence in higher education: the state of the field. In: *International Journal of Educational Technology in Higher Education* (2023) 20:22 <https://doi.org/10.1186/s41239-023-00392-8>.
- D'mello S.; Graesser, A. (2013). AutoTutor and affective autotutor: Learning by talking with cognitively and emotionally intelligent computers that talk back. *ACM Trans. Interact. Intell. Syst.* 2, 4, Article 23 (December 2012), 39 pages. <https://doi.org/10.1145/2395123.239512>.
- Fahd, K., Venkatraman, S., Miah, S.J.et al. (2022). Application of machine learning in higher education to assess student academic performance, at-risk, and attrition: A meta-analysis of literature. *Educ Inf Technol* 27, 3743–3775 (2022). <https://doi.org/10.1007/s10639-021-10741-7>.
- Felten, P.; Chick, N. (2018). Is SoTL a signature pedagogy of educational development? *To Improve the Academy*, 37(1), 4–16. Retrieved from doi:10.1002/tia2.20077
- Felten, P. (2013). Principles of Good Practice in SoTL. *Teaching and Learning Inquiry: The ISSOTL Journal*.1 (1): 121–125. Doi:10.20343/teachlearninqu.1.1.121.
- Holmes, W. (2019). Artificial Intelligence in Education. In: Tatnall, A. (eds) *Encyclopedia of Education and Information Technologies*. Springer, Cham. https://doi.org/10.1007/978-3-319-60013-0_107-1.
- Hüther, O.; Krücken, G. (2018). Higher Education in Germany—Recent Developments in an International Perspective. 10.1007/978-3-319-61479-3.
- Leschke, J.; Salden, P. (2023). Didaktische und rechtliche Perspektiven auf KI-gestütztes Schreiben in der Hochschulbildung.



- <https://doi.org/10.13154/294-9734> Online available at: RUB-Repository - Didaktische und rechtliche Perspektiven auf KI-gestütztes Schreiben in der Hochschulbildung (ruhr-uni-bochum.de).
13. Liao, Y., Huang, R., Sun, C., & Li, X. (2021). Artificial intelligence in education: Opportunities and challenges from a learning sciences perspective. *Frontiers in Education* 6, p.1-7.
 14. Mieg, H. A. (2018). Professionalisierung. In F. Rauner & P. Grollmann (Ed.), *Handbuch der Berufsbildungsforschung*, (3. Aufl., S. 452-462). Bielefeld: Bertelsmann.
 15. Nuxoll, F. 2023. KI in der Schule. In: *Aus Politik und Zeitgeschichte (APuZ)*, 13.10.2023. Online available at: [KI in der Schule | Künstliche Intelligenz | bpb.de](https://www.ki-in-der-schule.de)
 16. Parsons, T. (1968). Professions. In: *International Encyclopedia of the Social Science* 12 (1968), S. 536-547.
 17. Yao-Ting Sung, Kuo-En Chang, Tzu-Chien Liu. (2016). The effects of integrating mobile devices with teaching and learning on students' learning performance: A meta-analysis and research synthesis. In: *Computers & Education*, Volume 94, 2016, p. 252-275, ISSN 0360- 1315, <https://doi.org/10.1016/j.compedu.2015.11.008>.
 18. Schüller, K.; Bosch, P.; Hindinger, C. (2019). *Future Skills: ein Framework für Data Literacy* (No. 47). https://hochschulforumdigitalisierung.de/wp-content/uploads/2023/09/HFD_AP_Nr_47_DALI_Kompetenzrahmen_WEB.pdf
 19. Vygotskij, L.S. (Ed.). (1964). *Denken und Sprechen* (J. Helm, Trans.). Akademie-Verl.
 20. Wannemacher, K.; Bodmann, L. (2021). *Künstliche Intelligenz an den Hochschulen. Potenziale und Herausforderungen in Forschung, Studium und Lehre sowie Curriculum* entwicklung. Hochschulforum Digitalisierung Nr.59/April 2021. Online available at: [HFD_AP_59_Kuenstliche_Intelligenz_Hochschulen_HIS-HE.pdf](https://www.hochschulforumdigitalisierung.de/HFD_AP_59_Kuenstliche_Intelligenz_Hochschulen_HIS-HE.pdf) (hochschulforumdigitalisierung.de)
 21. Weimann-Sandig, N. (2023a). Digital Literacy and Artificial Intelligence – does Chat GPT introduce the end of critical thinking in higher education? *EDULEARN23 Proceedings*, p. 16-21, 10.21125/edulearn.2023.0011.
 22. Weimann-Sandig, N. (2023b). Students as partners - ein ganzheitliches Lehr- und Organisationsentwicklungskonzept. In: *Building Bridges in Distance and Higher Education - Erkenntnisse aus dem BediRa-Barcamp 2022*. ehs-Schriftenreihe 5/2023, p. 37-41. <https://nbn-resolving.de/urn:nbn:de:bsz:14-qucosa2-839488>.
 23. Weimann-Sandig, N. (2023c). Co-Constructing Crises – To what extent does digitalization contribute to a professionalization of social, person-related services? In: *Building Bridges in Distance and Higher Education - Erkenntnisse aus dem BediRa-Barcamp 2022*. ehs-Schriftenreihe 5/2023, p.9-18. <https://nbn-resolving.de/urn:nbn:de:bsz:14-qucosa2-839488>.
 24. Weßels, D. 2023. Panel-Talk bei der re:publica in Hamburg zum Thema: "Wie kann uns die Hochschule für die digitale Gesellschaft gelingen?" mit Linn Friedrichs, Frank Ziegele und Oliver Janoschka, Hamburg, 22.09.2023, siehe Programm am 22.09.2023: <https://re-publica.com/en/schedule?day=2023-09-22>, dort Panel-Talk: <https://re-publica.com/en/node/3837>, Link zur Aufzeichnung: <https://www.youtube.com/watch?v=OrRtJzu1G7>.
 25. <https://www.youtube.com/watch?v=OrRtJzu1G7>.
 26. Zoglauer, T. (2021). *Information und Wissen. In: Konstruierte Wahrheiten*. ars digitalis. Springer Vieweg, Wiesbaden. https://doi.org/10.1007/978-3-658-34597-6_4.