Call for papers
Künstliche Intelligenz in der forschungsgeleiteten Hochschullehre

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Date of publication: February 2025

To the main topic

In addition to existing white papers (Sabzalieva & Valentini, 2023; Gimpel et al., 2023), ethical guidelines (European Union, 2022) and orientation frameworks provided by universities, the question of empirical evidence for changes through the use of AI systems in university teaching arises. As the central guiding question for this specific issue, we want to explore the question: What does artificial intelligence do to university teaching?

Artificial intelligence (AI) has been a topic in the education sector not only since the publication of ChatGPT. So far, AI systems have mainly been used to predict and support learning behavior, for resource recommendations, assessment, automated feedback, intelligent tutoring and to improve the learning experience (cf. Zawacki-Richter et al., 2019; Ouyan, Zheng & Jiao, 2022). What is new, however, is the use of (generative) AI systems as an essential support for teaching and learning processes for both teachers and students. Easy access and intuitive operation enable integration into everyday teaching and learning situations.

Although the use of AI-based systems has already taken place in various areas (e.g. employment service, medicine, industry and production), it is ultimately the penetration of everyday student life by applications such as ChatGPT that shows the need for an intensive examination of the topic of artificial intelligence in higher education.

This not only raises questions regarding the integration of AI systems in the organization of the university, e.g. as a predictive tool for study progression, but also at the level of changes in higher education. This includes, for example, the question of the integration of the topic per se into curricula, the question of the required acquisition of skills and the integration of AI teaching-learning assistance for teachers and students, as well as questions relating to research-led university teaching.

The complex problems that arise from the specific issue highlighted contribute to the formation of the following questions:

- How is higher education changing through the use of AI systems? What skills will be needed in the future in an educational, professional and everyday world permeated by AI? Will AI systems become part of the higher education landscape and in what form (integrated into existing systems or as independent services - for example as digital assistants)?
- What skills and infrastructural requirements do teachers and students need (AI literacy)?

- How is the use of AI systems integrated into the curriculum on the one hand and how are ethical, legal, economic and social changes addressed in selected courses on the other?

- To what extent can AI systems be used to assist with research-led teaching? If systems can perform automated content analyses and generative tools such as ChatGPT support the creation of research designs and the writing of papers, how should essential research skills be developed? Does the use of assistive systems make it possible to promote essential research skills? What quality criteria must be applied when writing scientific papers?

- Which modified didactic scenarios are required and implemented for the integrated use of AI systems, such as ChatGPT, without losing sight of essential learning processes? Which teaching-learning processes can be usefully supported with AI systems? Is there empirical evidence for the use of AI to promote learning, and how can this be made plausible or even measured?

- Which methodological approaches to AI are expedient for higher education didactic considerations? What conceptual changes are necessary in order to do justice to the new situation? What framework conditions are necessary for fair, transparent and equal opportunity use of AI systems in university teaching?

- the use of AI be reflected and integrated in course design, but also at a higher level, e.g. with regard to the design of curricula or qualification profiles? How is AI changing our image of academic performance?

This special issue of the ZFHE is intended to shed light on the current state of the debate on AI in higher education research and didactics and to deepen the outlined discussion with a focus on research-led higher education teaching. General didactic contributions as well as subject-specific didactic contributions are just as welcome as contributions on higher education development with a special focus on changes in higher education. Contributions on educational science are of particular interest.

Literatur

Europäische Union (2022). *Ethische Leitlinien für Lehrkräfte über die Nutzung von KI und Daten für Lehr-Lernzwecke*. https://data.europa.eu/doi/10.2766/153756

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Sabzalieva, E., & Valentini, A. (2023). *ChatGPT and artificial intelligence in higher education: quick start guide*. Unesco.

Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education – where are the educators? *International Journal of Educational Technology in Higher Education, 16*(1), 39. https://doi.org/10.1186/s41239-019-0171-0

Guidelines regarding the journal

The ZFHE is a peer-reviewed online journal that publishes scientific contributions of practical relevance concerning current higher education development issues. The focus is on didactical, structural, and cultural developments in teaching and learning. Topics that are innovative and still regarded as open in respect of their design options are preferred.

The ZFHE is published by a consortium of European researchers and funded by the Austrian Ministry for Science, Research and Economics. For more information, see https://www.zfhe.at.

Submission information

German or English contributions may be submitted in two possible formats:

Research contributions should meet the following criteria. The paper:

- addresses a systemic question in transdisciplinary, interdisciplinary or subject-specific contexts;
- has a research gap as its starting point;
- is extensively embedded in current scholarly discourse;
- has a robust methodological approach;
- includes reflection on the author's own work;
- explains the research methodology;
- employs a method that is suitable for answering the research question;
- presents the scientific discourse in a reflective manner;
- makes a clearly recognizable contribution to answering the research question or to the research discussion;
- consistently follows relevant citation rules (APA style, current edition);
- comprises between 20,000 and 33,000 characters (with spaces, including cover page, bibliography and author information).

Research-driven development contributions should meet the following criteria. The paper:

- features a higher education development perspective with a sound research base;
- discusses and differentiates a systemic problem in teaching development;
- is an academically grounded "institutional research" contribution;
- is supported by a literature review;

- meaningfully addresses the interaction between science and praxis and/or the link between the two poles of "research and development"
- consistently follows pertinent citation rules (APA style, current edition);
- comprises between 20,000 and 33,000 characters (with spaces, including cover page, bibliography and author information).

Development contributions should meet the following criteria. The paper:

- deals with a concrete problem in higher education development in the (author's) higher education institution;
- addresses a practical need;
- is embedded in the scientific discussion and literature (without claiming to provide an overview of the literature);
- offers suggestions for teaching and university development, with recommendations for action (if applicable);
- offers a systematic and transparent discussion (e.g. no incomprehensible references to specifics or details in a field of practice);
- elaborates on generalisable aspects relevant to theoretical development;
- addresses considerations related to the transfer to practice;
- mentions possibilities for further research;
- consistently follows relevant citation rules (APA style, current edition);
- comprises between 20,000 and 33,000 characters (with spaces, including cover page, bibliography and author information).

Submission and review schedule

August 26, 2024 – Submission deadline for complete articles: Please upload your contribution(s) to the ZFHE journal system (https://www.zfhe.at) in the corresponding section (research contributions, research-driven development contributions, development contributions) of ZFHE 20/SH KI issue in anonymous format. To do so, you must first register as an author in the system.

up to November 11, 2024 – Feedback/Reviews: Scientific contributions and workshop reports are evaluated in a double-blind process (see below).

Dezember 2, 2024 – Revision deadline: Where necessary, contributions may be revised according to feedback and recommendations from the reviews.

February 2025 – Publikation: Online publication: In December 2024, the finalized contributions are published under https://www.zfhe.at and also made available in print.

Review Process

All submitted contributions will be examined in a double-blind peer review process to guarantee scientific quality. The editors of the current issue propose the reviewers for the respective theme and allocate individual contributions to the reviewers; they also determine which contributions will be accepted. The selection of reviewers and the review process for each thematic issue are always supervised by a member of the editorial board.

Formatting and submission

In order to save valuable time with the formatting of the contributions, we kindly ask that all authors work with the template from the beginning. The template can be downloaded from the ZFHE website under the following links:

https://www.zfhe.at/userupload/ZFHE_20-SH-KI_TEMPLATE_de.docx

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Since we must be able to edit the texts, they must be submitted unlocked/unprotected in in Microsoft Word (.doc), Office Open XML (.docx), Open Document Text (.odt) or Plain Text (.txt) format. Please do not submit any PDF files! Submissions in the “Scientific Contribution” and “Workshop Report” categories must first be made in anonymous format in order to guarantee the double-blind review process. Please remove all references to the author(s) of the document (including in the document properties!). Upon a positive review result, this information will be re-inserted.

Questions?

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We look forward to your submissions!

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