

Call for Papers

Digital education and training: Will intelligence really become “artificial”?

“Books will soon be obsolete in the schools... It is possible to teach every branch of human knowledge with the motion picture. Our school system will be completely changed in ten years.”

(Thomas Edison, 1913; quoted after Kerres, 2018, p. 87)¹

Even in 1913, Thomas Edison predicted that technological developments will have fundamental effects on the sphere of education and training. More than 100 years later, we find that while books are still relevant in basic, advanced and follow-on training – at least today – , digitalisation is gaining increasing importance, also and especially in the field of education and training.

We thus would like to look back on the past decade and, together with you, critically discuss what changes digitalisation has actually brought about for education and training in this period. At the same time, we would like to investigate with you how technological developments – e.g. artificial intelligence (AI) – will influence basic, advanced and follow-on training in the future, which expectations we have and where (governmental) organisations may come up against limiting factors.

The Bundeswehr Education and Training Convention, which, until 2014, was still referred to as “distance training convention”, has combined the perspectives of technology and education from an academic and practical point of view since 2004. This self-concept makes a focus on the subject of digitalisation and artificial Intelligence (AI) in basic, advanced and follow-on training particularly interesting today. We therefore invite representatives of science (educational sciences, social sciences, engineering, science of technology and economics) as well as experts of educational practice from the Bundeswehr and from trade and industry to take part in the dialogue during the three days of the convention. For this purpose, you can submit contributions for the SCIENCE and PRACTICE panels. After the Bundeswehr Training

¹Kerres, M. (2018): *Einführung in die Mediendidaktik. Konzeption und Entwicklung digitaler Lernangebote* (5th completely revised edition). Berlin & Boston: Oldenbourg.

and Education Convention 2020, these papers will be published in a conference volume (cf. Schulz et al., 2016)².

We welcome **theoretical and empirical papers** as well as **papers from the practice of basic, advanced and follow-on training** which illustrate one or more of the aspects described in the following, looking both at the past and the future, and combining them with current findings and experiences.

The **SCIENCE panel** will, in a first step, aim to find a precise definition for the concept of digitalisation: What is digitalisation, how is it described by the scientific community, and how does it affect education and training? What is the reasoning behind concepts such as digital education, digital teaching and learning or digital competencies, and which assumptions from the theory of education are they based on?

Another aim is to point out potential changes resulting from digitalisation, including the application of (strong and weak) AI for teaching and learning processes/scenarios, and to discuss consequences for tailoring AI to the needs of the target audience: How will learning change in a digitalised environment and through the application of AI? How will man and machine learn? What new target audiences for research and teaching will result from this? And what opportunities and chances, but also what limits do we see for education and training?

We would also like to discuss about the changes that affect those involved in the education process, their self-image and their role perception: How can successful interaction between teachers and learners be ensured? What are the consequences for the individual and his/her responsibility in the education process? Which ambivalences and resistances are identified?

Finally, there is the question what new requirements are created for the organisation of education and for educational institutions: What significance does digitalisation have for learning and teaching in educational institutions and beyond? How does digitalisation affect the organisation of education? What infrastructure and services must be provided? What innovations, resource requirements and dependencies on other organisations result from this? And what digital forms of work organisation are required for modern research and teaching?

During the discussion about digitalisation and the use of AI in the world of work and the sphere of education, we would like to discuss with you changed requirements, taking into

² Schulz, M., Griebenow, B., Neusius, A., Vogeler, C. & Papenberg, K. (2016): *Fernausbildung schärft Perspektiven...: Technologiegestützte Bildung als Motor für Innovationsprozesse*. Augsburg: ZIEL-Verlag.

account current findings, and we intend to critically discuss questions concerning challenges and opportunities for teaching, research and administration.

The **PRACTICE panel** serves to talk about and demonstrate the influence of digitalisation and AI on practice in the Bundeswehr today and in the future. In this context, the training and education community of the Bundeswehr and beyond is asked to present their concepts and daily practice, as well as their ideas for the future. The panel is open to institutions and associations which develop and shape digital teaching/learning scenarios. In the PRACTICE panel, we also request contributions from the exhibitors of the exhibition accompanying the convention.

We would like to discuss with all of you about what we really mean when talking about digitalisation and AI, and what challenges result from them for practice. You would like to exchange your views on digitalisation projects and learn how science and research can support implementation? You are already working with AI applications and would like to exchange experiences with other experts?

The use of simulation technology in training and exercises is an exciting and important field of action of digitalisation and AI, and an area where the armed forces can look back on many years of experience. You are already successfully working with technological applications within the framework of training projects, or have developed concepts on how to shape digital learning processes. How does this affect the learning situation, the learners and the instructor? Where do you expect to get ideas, help and orientation? What consequences do digitalisation and AI have for the qualification and the maintenance of proficiency of the instructor personnel?

You can talk about opportunities and limits of digitalisation from your own everyday work experience and would like to work on approaches to a solution? You have a special interest in sharing your concepts and ideas with others?

The Convention serves to discuss and critically examine changes due to digitalisation that affect training facilities and educational institutions or the management and control of training and education. You actively contribute to and influence digital change in your organisational element, would like to share your experience and talk to others about this?

If you can contribute to these exciting perspectives from practical experience, we would very much appreciate your attendance and invite you to present your experiences and examples in the PRACTICE panel.

We welcome contributions that tell us about your daily work in the sphere of education and illustrate opportunities and challenges of digitalisation and artificial intelligence (AI), especially in implementing modern approaches of learning theory such as competence-based training. It is possible to combine them with exhibition contributions.

Please observe the formal criteria for submission and use the template available on the website (www.ausbildungskongress.org) for submitting your contribution. Should you have any questions, please do not hesitate to contact us under the contact data below.

Dates

Submission of contributions

by **01 March 2020**

by e-mail to:

ausbildungskongress@hsu-hh.e

Bundeswehr Education and Training Convention

Convention and Exhibition

1–3 September 2020

Contact

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Organisation

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