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Higher Education Landscape 2030

A Trend Analysis Based on the AHEAD International Horizon Scanning

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About This Book

Between February 2018 and January 2019, a systematic analysis of current trends and requirements in the areas of knowledge and competence was carried out within the project "(A) Higher Education Digital (AHEAD)—International Horizon Scanning/Trend Analysis on Digital Higher Education." One aim of this project was to examine the latest developments in learning theory, didactics, and digital-education technology against the background of (increasingly) digitized higher education. The analysis formed the basis for a horizon scanning of higher education in 2030, designed to develop future scenarios that would meet future higher education demands by taking advantage of social and digital innovations.

This study was conducted on behalf of the German Federal Ministry of Education and Research (BMBF) by the FiBS Research Institute for the Economics of Education and Social Affairs together with the HIS Institute for Higher Education Development e.V. (HIS-HE).

The AHEAD study was commissioned to look into the future and reveal what the higher education landscape could look like in 2030. The study takes account of technological developments in society, without seeing them as the sole force driving future higher education. Rather, it assumes that higher education will change by 2030 as a result of developments in the following areas:

- Knowledge and competence requirements from industry and social changes, in an increasingly digitalized world;
- New developments in didactics, reflecting current discussions in the field of didactics and learning theory;
- Digital technologies and new ways of using these technologies, which are likely to create new forms of learning and environments for learning.

This study was conducted in two phases. First, preliminary studies were carried out to investigate the three areas mentioned above, using literature evaluations, surveys, interviews, and subsequent discussions with the AHEAD International Advisory Board.

A comparative literature analysis at the beginning of the study clearly revealed thematic focal points by discipline; the findings are summarized in the following three core statements, which are central to the research approach adopted here:

- The literature shows that the economic view of the future of higher education is clearly focused on students, in the context of the labor market and labor-market requirements.
- The educational science perspective, on the other hand, emphasizes the role of learning and the skills and competences that students will need to succeed in the labor market.
- Technology and digitization are central topics only in the field of computer science.

A comprehensive view of higher education in 2030 must merge all of these perspectives into one picture of the future.

An examination of other predictive studies of higher education shows that many future scenarios focus on institutions of higher education and examine the question of what such institutions could look like in 2030. However, this question depends not only on demand, but also on the freedom to shape and reform higher education, which is determined by governance regulations, including laws, financing methods, and quality assurance.

The AHEAD study has therefore adopted a different perspective. The project team, in cooperation with the Advisory Board, and following discussions with many experts and stakeholders, decided to put learners at the center of the concept—because higher education exists to support learners. The demands of the labor market and society have an impact on learners, who remain central to good didactic concepts. Digital technologies allow more flexible learning, as well as opportunities to learn in very different spaces, blurring the boundary between physical and virtual presence.

In the second phase of the project, four learning pathways were developed to provide a view of higher education in 2030. These learning pathways and their elaboration were based on interviews with experts and initiators of innovative learning opportunities, group discussions, and an international survey conducted by the team during the project. In addition, innovative use cases were researched to illustrate these learning paths. The learning pathways are briefly described below (named after toys for ease of recall):

- ***"Tamagotchi:"*** Here, as at present, the study program offers basic, comprehensive preparation for subsequent employment, with the university functioning as a closed ecosystem that supports and guides students as they pursue a course of study. This model is particularly well-suited to people who go (almost) directly from school to university or college.
- ***"Jenga:"*** In this model, the "first-degree" program offers a solid foundation of knowledge and competences, and can take the form of a shortened study program. The curriculum builds on this foundation and is constantly expanded by the learner (student) through new learning blocks. These additional blocks are made available by various training providers.

- ***"Lego:"*** The course of study is no longer completed as a compact unit at a university or college, but consists of individually combined modules of different sizes from different training providers. The learners themselves decide which learning phases or units they want to complete. In addition to providing the learning units, the university is responsible for recognizing completed learning phases by providing formal certificates or documentation.
- ***"Transformer:"*** The students in this model do not transfer directly to higher education as school-leavers, but have already acquired their own professional identities and life experiences. They attend university or college later in life integrating their life experience into their studies. They need a flexible course of study that alternates between didactic control by teachers and advisors, and their own self-determination.

This vision of a higher education landscape that emanates from the learner has been shown to foster open discussion. As a result of this change in perspective, questions about institutional support, governance, and quality assurance, as well as issues involving institutional financing for restructuring and infrastructure (which would otherwise have a major impact on any debate about the future form of higher education or higher education institutions) move into second place. Although the suggested learning pathways will have a substantial impact on the organization and activities of universities and colleges, as well as on higher education policy and governance, the present study will not investigate this topic further.

The use cases described in this study show how technology can be fully embedded into educational initiatives. The practical examples showcase a new strategic approach that is not merely additive but highlights daring reform efforts, avoiding the less promising approach of placing new technology in old structures. Innovation is not simply based on technology but on the use of new technologies to achieve (higher) education goals more fully and effectively for all.

The FiBS Research Institute for the Economics of Education and Social Affairs

The FiBS Research Institute for the Economics of Education and Social Affairs (Forschungsinstitut für Bildungs- und Sozialökonomie) is an independent institution that carries out application-oriented research and consulting on lifelong learning, from early childhood education to continuing education; it is based in Berlin and interfaces with the labor market, innovation, digitization, social issues, and demographic development. The institute is active in Germany, Europe, and worldwide; its mission statement is "Enhancing Lifelong Learning for All."

FiBS was founded in 1993 by its owner and director, Dr. Dieter Dohmen, as interdisciplinary research and consulting institution and think tank, with a focus on science-based policy advice. For more than 15 years, a key area of focus has been the impact of digitization on education, learning, and the labor market. In addition

to the present study, which investigates the implications of digitization on universities, particularly in relation to vocational education and training (with a focus on developing countries), we have developed market potentials and business models for the higher education sector at an early stage. Currently, we are also working to integrate this topic into curricula.

The HIS Institute for Higher Education Development (HIS-HE)

The HIS Institute for Higher Education Development (HIS-Institut für Hochschulentwicklung e. V., HIS-HE) is dedicated to the promotion of science, research, and teaching. This research-based, independent competence center specializes in consulting and know-how transfer on topics that relate to university development and the organization of research and teaching. The federal states of the Federal Republic of Germany are members of the HIS Institute for Higher Education Development.

With the HIS Institute for Higher Education Development, the German Länder maintain an institution whose profile enables the development of basic principles for the construction, use, and organization of universities, research, and educational institutions; it also provides planning assistance and policy advice on questions of strategy, management, organization, and process design, as well as technical and structural equipment.

Contents

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Dr. Maren Luebcke is a research associate in the Department of University Management at the HIS Institute for Higher Education Development (HIS-HE) in Hanover. Her consulting and research focus at HIS-HE is the digitization of research and teaching at universities. She holds a Ph.D. in Communication and Internet Sociology and a Master of Higher Education. She has worked in various international research projects on e-learning and e-democracy and is the author of various publications in this field.

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Dr. Dieter Dohmen is the founder, owner, and Director of the FiBS Research Institute for Educational and Social Economics and works as a scientist and consultant, currently in Germany as well as in various other European and non-European countries. He is the Scientific Director of all projects. After his studies in sports and social sciences at the German Sport University Cologne and the University of Cologne, he obtained a diploma in economics and social sciences at the University of Cologne and a doctorate at the Technical University Berlin.

List of Figures

List of Tables