Digitalisation and AI are conducive to increasing the attractiveness of vocational education and training

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Digitalisation and artificial intelligence continue to be decisive topics within politics, trade and industry, and society. BIBB has acted in a timely manner to address the associated question as to what consequences will ensue for the world of work and employment. Extensive research and development findings now provide a basis for delivering responses.

A shapeable challenge, not a threatening scenario

The changes arriving in the wake of digitalisation and AI are now being described as challenges that can be moulded rather than as impending threats. Even though the degree of digitalisation varies in the individual economic sectors, we join the IAB in embracing the prediction that digitalisation and AI will not lead to wholesale job losses on the labour market. It is said that digital transformation will cause around 140,000 jobs to disappear by 2035. At the same time, new employment opportunities and new jobs will be created as the service sector continues to develop.

After screening a wide range of occupations, we have come to the conclusion that digitalisation and AI will help drive the modernisation of many occupational profiles. The occupation of warehouse logistics operator is one striking example in this regard. Aspects such as more control console activities, including systematic monitoring of material flow and the assumption of more responsibility for process optimisation and comprehensive quality management, will mean that they will shed their image of being "crate pushers". Tasks in agriculture will also become increasingly complex and demanding as a result of digital herd management and the use of geo-information and farm management systems.

The individual examples which we have investigated in various occupational fields enable us to arrive at a conclusion for the occupations system in its entirety. Although the essential core tasks will be retained in most occupational profiles, particular tasks will gain considerably in significance. These mainly include those concerning information technology, including IT security. IT-aided communication will become further established. Alongside occupation-specific skills and knowledge, self-learning competence, process and system understanding, digital competence, flexibility and spontaneity will all need to occupy a stronger position in the regulatory instruments as key core skills.

Taking advantage of the chance to create profiles at different levels

All in all, the overall situation brought about by digitalisation and AI offers good prospects of achieving a boost in the attractiveness of VET. The system level will see design options emerging in respect of profile formation and the delineation of altered occupational profiles and regulatory standards that are in line with requirements. As well as establishing 4.0 training profiles, the main focus will need to be on using attractive connective options in continuing and advanced vocational education and training to open up career prospects to skilled workers. At the governance level, much leeway will potentially be offered by openly designed training regulations, by equipping learning environments in a way which is in accordance with requirements, and by a different understanding on the part of VET stakeholders of their role and self-image. And, last but not least, new forms of learning and innovative methods for monitoring learning outcomes at the implementation level will provide enormous potential in terms of making the learning that takes place in company-based, inter-company and school-based vocational education and training more effective and therefore also more attractive.

Taking all of this on board now would be a more than wise approach! ◀

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