Results of a Student Survey on the State of Digital Transformation in Austrian Secondary Colleges for Agriculture and Forestry (HBLAs)

Erika Quendler* and Mathias Renner-Martin

Federal Institute of Agricultural Economics, Rural and Mountain Research, Austria

Submission: August 07, 2019; **Published:** August 20, 2019

*Corresponding author: Erika Quendler, Federal Institute of Agricultural Economics, Rural and Mountain Research, Dietrichgasse 27, 1030 Vienna, Austria

Opinion

At the HLBAs the digital transformation is already in full swing. It means the transition from analogue to digital teaching, away from paper and pencil to the keyboard, mouse and touchscreen. Digital devices and media are more and more used in teaching the learning content. This can increase motivation and collaboration in the classroom, in class preparation, in project work, in homework, and in exam study, and also improve learning outcomes. But the place and time of learning also change from being bound to a classroom to a virtual, independent learning. Digital devices and media determine the lessons. For the students, digital learning becomes interesting because of digital devices, e.g. PC (standalone unit). A more accurate shows that in the classroom with a daily and weekly use so far beamer (92%), Internet (91%), PC as stand-alone unit (80%) as well as white/smartboards (46%) arrived. In contrast, cell phones, smartphones (33%) and learning platforms (34%) play a lesser role. Notebooks are used by a third. Almost half (48%) of the students use learning software, online quizzes and tests. Also, digital media are used for communication. At school, 80% of learners use email, followed by WhatsApp (63%) and the class folder (53%).

Which Risks are Moving?

The students' responses express a clear awareness of the risks associated with the use of digital devices and media. The students see more and more online risks that unsettle them in the Internet use. The topics of data security and data protection have a high priority. The majority of students do not believe in the security of data on the Internet. Currently, 70% of respondents believe that their data is uncertain. In this context, with increasing digital transformation, data protection also becomes a challenge for HBLAs. For many students, the unauthorized disclosure of their data and the threat of viruses and malicious programs as well as the spying of their data is the greatest risk of Internet use. Surprisingly, the traditional media, such as radio, television and newspapers, are rated rather positively by the students overall.

Digital Lessons between Expectations and Wishes

Another result of the survey was not surprising, 57% of the students advocate increased use of digital media in the classroom. Learners would like to see the use of digital media in learning and teaching, especially where it makes sense. One of the reasons for this is that digital media can make teaching more diverse and interesting (87%). Also, regarding a future job, they see the integration of digital know-how in the classroom as necessary preparation (70%). In addition, 70% of students believe that digital media should be used more widely, i.e. teachers should try something new more often. In this regard, 63% of students agree that teachers are well prepared to use digital media for teaching. On the other hand, half (49%) of learners emphasize that teachers should be more interested in using digital media. Furthermore, the digital transformation of teaching also presents a challenge to teachers who should use digital devices and media authentically and meaningfully. The survey results also show that 78% of students agree that the teaching materials should be available digitally. According to the answers, the learners also believe that a transcript is valuable and useful and that the use of the board should not be neglected.

The Mixture makes it

The main finding of this survey is that the majority (80%) still favor a mixture of analogue and digital forms of learning. Thus, in many classrooms, the blackboard and textbooks are still the linchpin of the time-bound instruction. Nevertheless, half of the students still hope that in the future learning will take place more

and more in virtual spaces. Digital devices and media are tools to make not only learning, but also teaching more student-friendly, diverse and modern. Another important outcome of this survey was that the students see in the digital transformation a way to improve their current learning model both inside and outside the school. For example, every fourth student uses social media and blogs for homework and lesson preparation outside class hours.

These Challenges are Brought about

The digital transformation at the HBLAs is seen as a central task by the school management and policy makers. The learners respond to this challenge in different ways: on the one hand, there are the digital enthusiasts who really invest time until digital excellence and, on the other, those who hardly or only moderately care and feel motivated. This is also reflected in the learners' assessment of their knowledge: 62% of students say they have a basic digital knowledge, 34% have user proficiency and 4% expert knowledge. Also, according to the subjective assessment of the students almost two-thirds of teachers have a positive attitude towards digital media.

One of the strengths of digital transformation is undoubtedly that teaching materials can be exchanged quickly and easily. In addition, multimedia, interactivity and the possibility of networking and communication extend the possibilities of teaching and learning independently of time and place. To ensure this, however, the technical requirements must be met. According to the proportion of students, it becomes clear that one in two (52%) points to the lack of professional support and maintenance of the technology.

Digital transformation at the HBLAs is often understood to merely exchange pencil, paper and books for computers, notebooks or smartphones. However, this assessment fails to recognize that this change requires pedagogy adapted to digital education. The learners at the HBLAs, in turn, are challenged to deal with the digital transformation in order to use it to their advantage. This should lead young people to a responsible use of digital devices and media.

The Digital School Life is already a Reality

The students have already settled in the digital school life. They realize the potential and opportunities of digital learning but are also aware of its risks. Digital devices and media can be a useful tool for individual support of students and enrich the everyday school life at the HBLAs. As a result, students can be better promoted in their individual learning process and encouraged to become more responsible and self-reflective. Digital devices and media, modern pedagogical concepts and accompanying teacher training should be linked in such a way that the learners at the HBLAs can be guaranteed an optimal learning environment. The fact is: The HBLAs as a learning and educational institution prepare students for life in society and a professional activity. The future depends on promoting the potential and talents of the students. Digital competence plays a key role here. A society in technological change needs changing HBLAs. Current pedagogical patterns of action must also be measured against the new social requirements of the digital transformation.

This article is based on select results of the study 'Digital transformation in Austrian secondary colleges for agriculture and forestry'[1]. The aim of the study was to present the current state of digital transformation at the HBLAs and to explain the further need for action. You can find this study on the homepage of the Federal Institute of Agricultural Economics, Rural and Mountain Research. It was commissioned by the Federal Ministry of Sustainability and Tourism and coordinated by Pres. 4, Schools, Teaching and Research Centers. Special thanks go to the students who have taken the time to participate in the survey and to all those who contributed to the success of this study.

References

1. Erika QUENDLER et al. (2019) Digitalisierung an den Höheren Bundeslehranstalten für Land- und Forstwirtschaft in Österreich. Schriftenreihe Nr. 113 der Bundesanstalt für Agrarwirtschaft und Bergbauernfragen. Wien.

Your next submission with Juniper Publishers will reach you the below assets

- Quality Editorial service
- Swift Peer Review
- Reprints availability
- E-prints Service
- Manuscript Podcast for convenient understanding
- Global attainment for your research
- Manuscript accessibility in different formats
  (Pdf, E-pub, Full Text, Audio)
- Unceasing customer service

Track the below URL for one-step submission
https://juniperpublishers.com/online-submission.php