Digital Education: More than Technology

The competent, self-determined and safe use of digital technology is becoming an increasingly important part of teaching. But technology alone is of little use. Aloisius College in Bonn's Bad Godesberg district shows by example that digitalization based on schoolbooks should also follow an educational approach.

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Basically everyone agrees that digitalization must not be allowed to pass schools by. On the contrary: it is high time to invest more money in financing the technical infrastructure and pedagogical concepts. The main objective is to use the expenditure to create the necessary technical infrastructure so that pupils can also use their own laptops, tablets and the like in their schools. In Germany, this also includes equipping the country's almost 40,000 schools with WIFI.

After a tough struggle, the Federal Government and the States agreed on the Digital Pact for Schools in March 2019 and even amended the Basic Law. Article 104c now states: "The Federal Government may grant the states financial assistance for investments of significance for the state as a whole and for special, directly related, limited expenditures of the states and local authorities (associations of local authorities) to increase the efficiency of the municipal education infrastructure." To finance the Digital School Pact, funds from the 5G auction are to flow from the "Digital Infrastructure Special Fund."

DIGITAL PACT FOR SCHOOLS

Over a period of five years, the federal states will receive five billion euros from the federal government for debt digitization. In return, they undertake to put another ten percent of this sum on top. Meanwhile, some federal states have set up their own financing programmes in which more money is to flow into the development of digital infrastructures. Take North Rhine-Westphalia (NRW), for example. The previous state government under Prime Minister Hannelore Kraft launched the "Good School 2020" funding programme in 2016. By 2020, schools in NRW will be able to draw money from a special fund worth two billion euros for school infrastructure projects.

Even if digital schools cannot be imagined without modern technology, technology alone will not get schools ahead. The Digital Pact for Schools therefore includes additional components such as "No equipment without a concept" and "No funding without support." Schools must therefore set educational goals, for example in the form of a media concept, on which the development of the technical infrastructure can be aligned. On the other hand, the school authorities have a duty to ensure that the operation of this infrastructure is secured.

EQUIPMENT BETTER THAN ITS REPUTATION

At the beginning of 2019, the Deutsche Telekom Foundation and the Institute for School Development Research at the Technical University of Dortmund asked more than 600 teachers at lower secondary level how they assessed the digital equipment and support at their schools. There are still major differences; however, the results show that something is happening at German schools. More than two thirds of the institutions now have media concepts. In addition, a majority of teachers state that an IT coordinator or a teacher is responsible for the practical implementation of the respective media concept on site. And a good 80 percent of teachers say that the school administration has created the necessary framework conditions for the use of digital media.

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André Hoffbauer, Head of Administration at the Aloisiuskolleg, focuses on personality development for the digital future.

Take Bonn, for example: around 30 million euros from the NRW "Good School 2020" pot are flowing into the city's school landscape, around a quarter of which is reserved for the expansion of WIFI and broadband networks. The Aloisius College in the Bad Godesberg district has also put its IT infrastructure on a new footing with money from the programme in time for the start of the new school year 2019/20. The digital change at the Aloisius College is being driven forward by André Hoffbauer, head of administration, and Patrick Gies, head of IT, together with the school administration.

"We have renewed our servers in our own server rooms and now use Office 365 A1 licenses, which allow us to use Outlook, Word, Excel or PowerPoint as a school free of charge. If we replace the Exchange server later, that won't cost us anything either," reports Gies. "We also had to replace the firewalls because they were too slow and slowed down data traffic. And we have a fiber optic connection."

Many classrooms in the Aloisius College are already equipped with projectors and whiteboards, including digital timetables. Now the school administration is considering providing rooms that have not yet been converted with interactive boards. "And we are continuing to wire our school to cope with the increasing data traffic. Although the current network is sufficient for lessons, the students still don't have access to a WIFI connection," Gies regrets.

"DIGITAL LEADERSHIP EDUCATION"

So far, pure infrastructure. The Aloisius College has been dealing with the sensible use of media in teaching and a digital learning concept for years and developed a concept for media education in mid-2016. The Digital Leadership Education (DLE) project, which was developed jointly with other Jesuit colleges in Berlin and St. Blasien and is based on Ignatian pedagogy, aims to introduce pupils to technology. The motto: "Anyone who still hopes that education and digitality will coexist unaffected by each other in peaceful neighbourhood should be productively worried by the digital technological change."

The aim of DLE is to take up the challenges of digitalization and to strengthen the personality of the students of Ignatius von Loyola, the co-founder of the Jesuit Order, at the same time. They should not only learn how the technology works and how it is operated. In addition, they should question and reflect on the innovations and thereby be enabled to think and shape – and not just to consume digitalization. "We want young people to play an active role in social discussions about the significance of digitalization in our lives. In other words, it's about personal development for the digital future," explains Hoffbauer.

For the college it is crucial that, despite all the importance of equipment issues, the pedagogical and anthropological questions take centre stage. The mid-term goal is to develop an age-appropriate media concept and to learn school content through the targeted use of digital media. So far, the College Moodle has used a free object-oriented course management system and at the same time a learning platform that supports cooperative teaching and learning methods. Hoffbauer comments, "As part of our Digital Leadership Education concept, we are now examining further teaching software, for example for mathematics lessons."

And what will the digital classroom of the future look like according to the survey? Framed by the classic analogue blackboard, a large screen is emblazoned on the wall. The teacher uses a computer with a document camera, uses audio and video files and is connected to the school network. The pupils have smartphones, tablets or laptops and are networked via WIFI. Even learning itself does not relieve the pupils of the digital world.

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