Lifelong learning has come to stay

Not least the rapid digital development has motivated the creation of a new entity, DTU Learn for Life.

By Morten Andersen

Established April 2019, the new center DTU Learn for Life is ready to position DTU in the market for lifelong learning.

"We are keen to engage with industry, for instance at High Tech Summit. Which needs for additional competencies do companies see, and how should we go about lifting the level of education in the desired way? Armed with this information, we will develop new courses," says director Karina Rothoff Brix, DTU Learn for Life.

DTU Learn for Life was established as a merger between DTU Business, the Center for Continuing Education, and the section for continuing education in the Department of Education and Students. While the center is new, most of the educational activities are well established, Karina Rothoff Brix emphasizes:

"Several departments at DTU have maintained post-graduate courses for a long time, and these obviously continue. Examples are Master in Wind energy, DANIDA courses and several courses in the field of Compute just to mention some. Still, for these activities DTU Learn for Life will assist the various departments on marketing, pricing, contracts and legal basis for continuous education. The collaboration can vary from department to institute depending on the type of continuing education and the departments' own experiences and competencies."

Other DTU Learn for Life services include providing knowledge, advice and support on lifelong learning to DTU's customers in the business community, authorities and organizations. Further, advice and guidance for professional development, sparring, networking and management development.

"We see lifelong learning as a matter of developing a culture. Here, I am not just thinking about the mindset of the individual employee but also the culture of companies and organizations. Employers need to provide the right framework in respect to time and encouragement for their employees to engage in lifelong learning," says Karina Rothoff Brix.

Heroes of the virtual learning revolution

A new center for research and innovation in digital learning technology invites industry to come and play.

By Morten Andersen

Virtual Reality and other digital disciplines are already applied for numerous educational purposes, and a new entity at DTU is at the forefront of this ongoing revolution.

"In the complex world we live in, lifelong learning is required. Further, it is clear that this will increasingly involve digital learning," says professor Helle Rootzén, heading learnT – Center for Digital Learning Technology.

Situated at DTU Compute, the new entity has direct access to strong research environments within statistics, Machine Learning, AI, Internet-of-Things, and software development. Further, the center has collaboration with a range of companies.

"Companies approach us with their ideas. Usually, we are able to find a student with the relevant profile, and collaboration can start right away. If the idea is for a larger project, we can often write a joint application for funding," says Helle Rootzén.

Digital learning technologies produce large amounts of data that can be used to improve existing technologies, and to provide completely new opportunities for deeper learning processes and more suitable education. The disciplines in learnT include learning analytics, educational data mining, learning design, learning theories, playful learning, and ethics.

"Another focus is how future young people will become digital producers and learn about computational thinking. An example of this is research in how primary, secondary, and high-school students can work as digital game designers through game-based processes, and subsequently reach their academic learning goals in subjects such as Danish, social studies, biology, and history," says Helle Rootzén, adding:

"We are constantly aware, that students should not be gazing into their computers or tablets too much. There needs to be an interplay with the physical world. Thus, we take a strong interest in how we may combine virtual learning with the processes taking place in the physical world, both between students, between students and teachers, and in more informal learning environments."

Further, she sees an underlying mission for learnT:

"Denmark has strong traditions for being a frontrunner in education. Thus, I do not think that we should be content with adapting learning technology invented abroad. We need to be involved in the actual design phase, ensuring that the Danish educational core values are reflected in the final products. To do this requires a collaborative effort not only involving researchers here at DTU, but also other education sector experts and not least innovative Danish companies."

A smarter path to digital transformation

Developed in a joint project involving industry, trade unions, researchers and public bodies, a new concept is able to lift the digital skills in a company. Another nice feature: no charge.

By Morten Andersen

All companies want to upgrade their digital competencies, but it is not easy to find the right path in the jungle of courses out there. In an effort involving 18 partner organizations, a new concept is ready to turn small and medium size enterprises (SME's) in Greater Copenhagen more digital. Thanks to public funding, participation is free of charge but it is mandatory for a company to commit a minimum of 80 employee work hours.

"The magic potion is for a team which includes leadership commitment, to do this together. In our experience this will significantly increase the chance of the new knowledge actually being implemented in the company," says project manager Sofie Rasmussen, DTU Compute. She coordinates the KomDigital project on behalf of the partner organizations.

Uniquely, the KomDigital project involves partners from both sides of the table – both employers and trade unions – as well as a range of key public players. Funded by the EU and the Capital Region of Denmark Growth Fund, the project is designed to assist SME's – meaning companies in the 10 to 250 employee range.

KomDigital, from the left projectmanager Sofie Rasmussen, partner Morten Thissen from IDA and Helle Rootzén professor in e-learning. Photo credit: Mark Thyrring.

Digitization is a team effort

Among the disciplines are UX, AI, Data Science, Machine Learning, Big Data, and Blockchain.

"While there is no lack of courses in these subjects, we still see that the SME's in the Capital Region often remain hesitant to get involved. This is a paradox, considering that the companies are really interested in the new digital opportunities. One barrier is obviously the busy life in your typical SME, but we found that past disappointments also play a role. Too often will an employee return from some great course keen to implement new knowledge, but after a few days the enthusiasm fizzles out as everyday tasks demand attention," Sofie Rasmussen explains.

"We believe that no single employee will be able to really take things to the next level. Thus, the concept requires for the company to send one management representative and 3-5 other employees."

Another part of the recipe is to tailor the individual courses depending on which companies attend.

"Prior to the course, we require the companies to draw up a profile of their current challenges and needs for upgrading. Involving expertise in these topics, we will ensure that the course is relevant to the participants," says Sofie Rasmussen.

Be ready to handle the softer issues

Some content may be somewhat unexpected, Sofie Rasmussen warns:

"We believe that upgrading yourself on the specific digital disciplines will not be enough. Digital transformation in a company will often have consequences for the internal distribution of responsibility etc. If you are not prepared to handle these softer issues, you may easily fail."

The current funding allows KomDigital to offer the courses free of charge at least until the end of 2021.

More information at: www.komdigital.dk