

WELCOME TO LEARN**T** DTU

Learning is the new Earning

Welcome to learnT DTU

Centre for Digital Learning Technology - learnT DTU - is a leading research and innovation centre in learning technology, digitalisation and evidence from learning. We combine strong competencies from statistics, data analysis, machine learning, software engineering and human computer interaction and partner up with pedagogic and didactic research environments and research institutions, both nationally and internationally. Most of our many research projects are conducted in collaboration with one or more of the leading companies in the field.

LearnT DTU is an independent, university-based, research unit. We are a mix of internationally known scientists and young talents from different scientific communities around DTU Compute and DTU. Our research centre educates tomorrow's engineers in the field of learning technology, and education and training of MSc and PhD students are important parts of our activities.

Helle Rootzén

Professor in Learning Technology and Digitalisation
DTU Compute, Department of Applied
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What is digital learning technology?

Learning technology is a research and innovation field engaged in developing and implementing various, often digital, technologies to promote deeper, more flexible, personalised and efficient learning.

One example of digital learning technology is adaptive systems where the difficulty of a problem is tailored to the individual student. Further examples include the use of 3D printing, videos, virtual reality and artificial intelligence. Our focus is on situations where digital learning technology is used, because it can do something which is impossible without it - combined with interaction between students and between students and teachers, coaches and mentors.

A significant part of the discipline is handling and using the large amounts of data generated by students who work with digital learning technologies. Using the data we can gather evidence, research, analyse and obtain new knowledge in the field of education and, at the same time, give feedback to the individual learner to ensure efficient learning.

Why a new centre?

A dedicated centre focussing on digital learning technology will:

- Help provide individuals and organisations with the right learning at the right time.
- Explore new learning technologies to help facilitate flexible, efficient and personalised learning.
- Open up great opportunities for commercial expansion.



Mission

To ensure deep, individualised, flexible and efficient learning by researching and innovating within the field of digital learning technology.

Vision

To deliver influential front line research and push learning technology forward focussing on both the future exponential society and the individual learner.

Head of the centre

Helle Rootzén is a professor in learning technology and digitalisation at DTU Compute and director of the Centre for Digital Learning Technology. Her development of new learning technologies has changed the way mathematics are taught at DTU and at other universities. She has had a long engagement in digitalisation of the education field. Helle is an alumni from Singularity University and has extensive experience as a statistician working with researchers from many different fields of sciences and engineering. Helle is a member of the Danish Academy of Technical Sciences' committee the 'Digital Wise Men' ('Digitale Vismandsråd').

From 2010 to 2015, Helle was Head of Department at DTU Compute leading a value-adding merger between DTU



Informatics and DTU Mathematics into the new DTU Compute with almost 400 employees. During her time as Head of Department, DTU Compute has multiplied the number of external research grants and made substantial contributions to innovation.

It takes time and great effort to develop a whole new learning concept - and we need to do it together

Student-driven learning

Non-linear learning

Learning elements

Virtual reality

Artificial intelligence

Lifelong learning

Peer grading

Adaptive learning

Individualised learning

Evidence

Future education is about combining different learning technologies to find and use the approach best suited for the individual student, teacher and topic at hand. It is more than putting a book online, or making a video recording of a lecture. It is the development of new and innovative technology that unleashes the full potential of learning.

**Want to know more or partner up
with learnt DTU?**

Visit learnt.dtu.dk or contact

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