

Aarhus, den 1. september 2021

Internationale forskere og uddannelsesudviklere om "[den danske model](#)"

Udtalelser af udenlandske eksperter, der alle er internationale "kendisser" inden for feltet; de fleste er forskere og uddannelsesudviklere, der er centralt involveret i almengørelsen af fagligheden i hhv. UK, Israel, USA, New Zealand og Tyskland.

Hadi Partovi er CEO for organisationen [Code.org](#) (etableret i 2013), og han er den, der i 2014 fik [Barack Obama](#) og i 2019 [Paven](#) til at "programmere".

Hadi Partovi, CEO, [Code.org](#) [[Fuld udtalelse](#)]

As I've learned more about the approach used in the new informatics curriculum in Denmark, I've been especially impressed to see it go beyond coding to include not only computational thinking but also digital design and an examination of the possible consequences of digital creations. I commend the team that created such a comprehensive approach to teaching informatics.

As you consider the future of informatics education in Denmark, I hope you'll consider the importance of this field not only for students interested in technology, but as a fundamental piece of general education for all students.

Professor Michael Kölling, King's College London, UK [[Fuld udtalelse](#)]

Among the now many national curricula available to study, the Danish one stands out.

Instead of teaching as if we were trying to turn every school child into a software engineer, the Danish curriculum focusses on those aspects of digital education that are general and universal, those competencies which are needed and should be understood by every child.

This leads to a different approach in teaching Informatics, an approach driven by humanist principles rather than technical goals or economic requirements.

I admire the Danish curriculum for its boldness and quality. It is a curriculum that should be studied by every pupil in modern times, and I hope that other countries will follow the path Denmark has shown us all.

Judith Gal-Ezer, Professor, Open University, Israel [[Fuld udtalelse](#)]

The curriculum developed by the Danish Ministry of Education is original, coherent and exemplary with a well-articulated rationale.

Its thorough and broad focus on informatics – both the technical aspect and the human side – is novel and an inspiration for other countries who want to embrace informatics for all. The Danish curriculum will make a change!

Mark Guzdial, Professor, University of Michigan, USA [[Fuld udtalelse](#)]

I don't know of any state curricula that include digital empowerment nor digital design and design processes. These are critically important. Caspersen's arguments for the Danish Informatics curriculum build on quotes from Henry Kissinger and Peter Naur, but could also build on the work of C.P. Snow and Alan Perlis (the first ACM Turing Award laureate).

In 1961, Snow and Perlis both argued for mandatory computing (though at the University level). Perlis argued that computing gave us new ways to understand the world. He would have recognized the digital design and design processes competency area. Snow warned that everyone should learn computing in order to understand how computing is influencing our world. He wrote "A handful of people, having no relation to the will of society, having no communication with the rest of society, will

be taking decisions in secret which are going to affect our lives in the deepest sense.” He would recognize the concerns of Kissinger and Naur, and the importance of digital empowerment.

The Danish Informatics curriculum is unique in its breadth and for considering the social aspects of computing artifacts and design. It encompasses important needs for citizens of the 21st Century.

Simon Peyton Jones, Chair of National Centre for Computing Education, UK [[Fuld udtalelse](#)]

I have studied the outlines of the new curriculum you are trialing, with its four pillars of digital empowerment, digital design and design, computational thinking and modelling, and technological knowledge and skills.

This is a very interesting structure. The English National Curriculum covers the same areas, but probably with a greater emphasis on the last. [...]

I strongly support the treatment of informatics as a foundational subject, alongside maths and natural science, taught to all children by teachers trained in the subject, to give our young people the knowledge, skills, and confidence to thrive in an increasingly digital world.

You will be acutely aware of the importance of a good computing education, both to your country’s economy, and to the future lives of your young people. But to build the upper stories of house you need to build the foundations and ground floor first, otherwise it will all fall down. Informatics as a fundamental subject is precisely that foundation.

Tim Bell, Professor, University of Canterbury, New Zealand

I was impressed that the proposed curriculum balances technical skills with a critical view of the “possibilities and consequences”.

This balance makes the curriculum relevant to all students regardless of their vocational path, and sets the knowledge in the context of how the technology works for the most important part of a computer system: people.

Ira Diethelm, Professor, Oldenburg University, Tyskland

The Danish informatics curriculum for primary and lower secondary school seems highly appropriate to meet these needs.

It provides a solid and clear structure of competence areas offering teachers a clear view and long-lasting guidance on the subject to help all children to cope with the state of constant change.

Chris Stephenson, Head of CS Education Strategy, Google

All students need a fundamental understanding of computational thinking, informatics, and machine learning (AI).

Denmark is now preparing to use the most powerful tool available for the democratization of digital knowledge and skills: the implementation of a comprehensive, scientifically-validated curriculum for all students.

Michael E. Caspersen
Direktør, adjungeret professor