TREO
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Designing a course

People and Technology in Organizations

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In many organizations, significant parts of the processes are carried out by means of digital technology. Uber, Google, and Facebook are well-known examples and many small, medium-sized and big companies use and plan to use digital technology. The purpose of digital transformation is to ensure that an organization takes of advantage of the capabilities offered by contemporary digital technology.

This raises a set of fundamental questions: What kind of images of organizations can be helpful in support of ongoing digital transformation processes? How can we create images of existing and envisioned organizations that utilizes contemporary digital technology? Related to this, we can ask: In what ways can we prepare business-oriented technology students with concepts and images that they can use in their future career?

At Department of Business Development and technology, Aarhus University, Denmark, we have designed a new course that aims at enabling students to participate in the design of organizations that are based on significant use of technology, including digital technology. The course is called *People and Technology in Organizations* and it is composed of three related perspectives.

1. Work systems. This part is based on work systems theory (Alter 2008, Alter 2010) and selected theory about structures and routines.

2. Technology. Technology is characterized in three related ways. A capability view ensures that technology is characterized in terms of organizationally relevant capability types like structures, symbols, and actions. An affordance view ensures that the action potentials related to technology is considered. A generativity view ensures that the general and potential unforeseen generative, creative aspects enabled by technology is considered.

3. Human capabilities. Human capabilities are characterized at the organizational level, the meso level, and the individual levels.

The combination of these three perspectives facilitates create discussions and design considerations related to work systems that combine contributions from technical artifacts and human beings.

References

Alter, S. (2008). "Defining Information Systems as Work Systems: Implications for the IS Field." European Journal of Information Systems **17**: 448-469.

Alter, S. (2010). "Work System Theory: An Integrated, Evolving Body of Assumptions, Concepts, Frameworks, and Principles for Analyzing and Designing Systems in Organizations." Sprouts: Working Papers on Information Systems(Paper 372).