Workshop 1: Digital educational design

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Digital educational design *denotes the design of digital learning resources and activities which utilize such resources to support teaching, learning and academic communication. Educational design concerns the learning potential of the resources themselves (*design as product*), the way they are used in learning and communication contexts (*design as the actual way of practice*), and the process of 'giving form' to resources and practices (*design as process*).* This workshop focuses on how digitalization, and more particularly web and mobile technologies, influence these different aspects of educational design. The workshop will address some of the key themes of the conference: How can we understand *designs for learning and change* and how do we *connect design, theory and practice*?

Digital technologies have different kinds of potentials: they allow linking content, people and activities across contexts, they support use and reuse of content in new contexts and they support flexibility (geographical, temporal and institutional) in the organization and implementation of learning processes. Furthermore digitalization has gained significance in Education systems, in workplaces and in the public sector in the last years. Citizens' communication with state and local authorities has been digitized. Social media is widely accepted as a platform for communication, not only between private individuals, but also among groups of individuals, public bodies and private and voluntary organizations. E-books and online learning resources as well as tablets and smartphone applications are used at all educational levels. Students' development of digital competences is a part of the curriculum in primary school. Inclusion of ICT in education has become an assessment criterion for teachers, teaching staff, schools, and municipalities.

This development raises a set of theoretical, technological, educational and practical questions: What are the affordances of different kinds of technologies: E-books, tablets (e.g. iPads), web 2.0 and web 3.0? What are the content of digital literacy and how can we develop students' literacy competences? How can digital information content be organized and integrated in information architecture to support and qualify teaching and learning? How can teachers support learners in the use of learning resources for the development of professional skills? How can we facilitate students' and adults' use of technological artefacts through supervision and teaching? What are the required skills and attitudes of teachers and supervisors, and how can we ensure that these are present?

These questions are central for the research program *Learning, Design and Digitalization* situated at the Department of Design and Communication, University of Southern Denmark. This research program focuses on the study of new technologies and how they can be applied in teaching and learning. In our research, we integrate insights from the philosophy of knowledge with pedagogical

and technological perspectives on the teaching opportunities and challenges which technology may bring.

In this Workshop we will present and discuss different pedagogical, technological and practice perspectives on the field of digital educational design. The workshop is organized as short presentations (cf. our conference short paper) and will facilitate discussion in groups and as digital comments during the presentation (using padlet.com).

References
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Workshop 2: Masterclass on game oriented learning and teacher work

DAVID WILLIAMSON SHAFFER; MORTEN MISFELDT, University of Wisconsin Madison; Aalborg University

This Masterclass looks at teachers' use of digital games and simulations in their teaching. We focus on issues around adapting and co-designing teaching materials to fit teachers' own curricular needs. We will discuss questions of (1) localization and (2) co-authoring, in the sense that good teachers regularly adapt textbooks and curriculum to meet students' individual needs and the class setting in which they work. Commercial games often provide tools by which players can mod games, building new levels and adding features. But many learning games do not have this kind of customizability. The science of localization through pedagogical authoring is a key step in the widespread adoption of games for learning. But the adaptation of digital material for pedagogical purposes also requires active design and redesign, and this too is a critical part of preparing for teaching with digital games. In the masterclass we will discuss the process of authoring digital games/internships, and look at how how the participation in such authoring supports and hinders teachers' work.

The masterclass will consist of two shorter talks followed by facilitated discussions among the participants.

Workshop 3: Doing design-oriented analyses of multimodal resources for learning

EVA INSULANDER, FREDRIK LINDSTRAND & STAFFAN SELANDER, Stockholm University

This workshop will discuss a model for doing design-oriented analyses of different resources for learning (pedagogic texts). The basic idea is that multimodal analyses have to be related to a context, which frames the communication and the knowledge representations.

We then aim giving the participats an example, and in relation to this example the analysis will be carried out step by step by way of critical reflections. We will present and test the different steps in the following model:
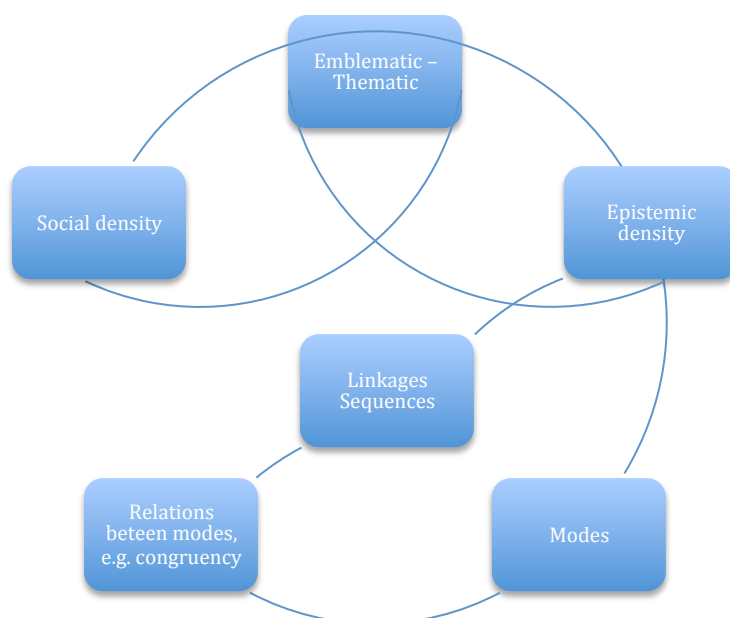

Figure 1. A model for doing design-oriented analyses of different learning resources

In this model, there are three basic approaches, each of them with a set of aspects with focus on:

- **semiotic, multimodal analyses** of *mode* and on *relations between modes*, such as congruency (for example if different modes support or contradict each other)
- **design-oriented analyses of content –** sequences and linkages, i.e. how information is *sequenced* (suggested reading paths or series of sets of information) and how concepts and examples are *linked* to each other to describe or explain a phenomenon
- **design-oriented analyses** of *epistemic density* and *emblematic salience* (the overarching picture such as metaphor, metonomy, synekdoke) and the *thematic salience* (which sub-themes that are represented), and of *social density* (explicit and implicit value statements)

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This model also relates to other aspects, which we would like to critically discuss during the seminar, for example:

- The "entrance" to the text
- Expected ways to read, engage with and expected ways to use, and transform, the text into a new representation
- User-oriented analysis of meaning-making
- Agentivity
- Ethical dimensions
- The positioning of the reader
- Epistemological framing and choices, different emphasis
- Interpretational spaces
- Social framing, ways of using other texts of a specific kind

Related readings

Danielsson, K. & Selander, S. (2014). *Se texten! Multimodala texter i ämnesdidaktiskt arbete*. Malmö: Gleerups.

Insulander, E., Lindstrand, F. & Selander, S. (Submitted). The Design of Knowledge Representations in Different Multimodal Texts about the Middle Ages". *Written communication*.

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Selander, S., Lindstrand, F., Insulander, E. & Ajagán Iester,L. (Under work). Representing the Middle Ages. School Textbooks from Sweden, Portugal and Chile. (Will be submitted to *Social Semiotics*)*.*