Background: Policy issues related to creativity and innovation in education

- In education policies (internationally), teacher-student relationship has been in focus as a means to prepare for future professions and citizenship involving creativity and non-standard problem solving (SITES-studies).
- An alternative view of the teacher profession (in response to societal developments) is often conceptualised in terms of participation in organisation development. Hargreaves (2004).
- Swedish context: ICT and organization development, evaluation and innovation are in focus in the new reform proposal for teacher education.
- Sweden has a decentralised school system, but it is argued that teachers have generally not been participating in organization development.
ICT is a broad set of *bridging* or *connecting* technologies, in several senses:

- **Perceptually**
  ICT provide access to common reference points in shared perceptual fields between students/students and students/teachers (Lindwall & Lymer 2008, Ivarsson, 2003)

- **Materially**
  The possibility to take parts of own or others previously produced material and combine and/or introduce it in a new context. Terms like “patchwork” (Ryberg, 2008) or “bricollage”

- **Temporally**
  Digital representations make gradual, step-wise and iterative ways of producing material rather than linear (type writer) highly appealing. See “design sequences” (Selander, 2008).

- **Spatially**
  ICT can make physical situations and social practices connect or interpenetrate. Rystedt (2002), Erstad (2005) and others has pointed to the educative potential involved.

- **Digital production processes has corresponding generic affordances**
  cooperation/collaboration, iterative creation, trial-and-error, re-use, recontextualisation and embedding/ “mesh-works” (combinations of different technologies and formats).

- **These can, but need not, combine well with educative purposes.**
  Both positive and negative aspects regarding all these aspects and affordances have been abundantly discussed in the literature.

Den var god tyckte Oskar. Nu skulle han gå å bovla. Han gick till sundahallen.
Understanding Digital technologies in Ecologies of Education

- An ecology of education includes social, semiotic and technological processes in systemic relations (O’Day & Nardi 1999; Erickson, 2004; Nystrand & Graff, 2000)
- Change is systemic; Attempts to change the ecology based on erroneous understanding of systemic relations will not be successful. An existing ecosystem conservatively exhibits inertia (O’Day & Nardi, 1999)
- Schools mix old and new media and educational formats; Within the same school, different conceptions of schoolwork may live side by side
- The important question is thus not simply how much can be built into the technology or how advanced and complex it is, but how it can contribute to new systemic configurations or “patterns that connect” (Bateson, 1972) in the social and communicative ecologies of education.
- Neither is it simply relevant how high the quantitative use is – the interesting question is what qualitative changes in (or new configurations of) educative activities that become possible.