

Identity and competence in the network society

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Erik Bratland, Nesna University College, Norway

The digital revolution has created today's net generation. More and more young people participate in network and gaming communities; these communities create identities, and their activities generate knowledge, cooperation, and learning processes. The young "screenagers" are the most important actors in an increasingly user-controlled internet. Internet communities such as MySpace, YouTube, Facebook, Blink, and Nettby, some with millions of users, have received much public attention. Three out of four Norwegian youngsters are members of a network community, and 96% of young people between 16 and 19 years use the internet on a daily basis.¹ The transition to the Web 2.0, combined with broadband access, has made uploading as easy as downloading and allows publishing all kinds of materials on the internet. The internet is a variable tool and has a central place in creating the self of young people. Through their practice young people create a digital life, which consists of new forms of communication, cooperation, and creation of identity. These processes exceed traditional frameworks of socialization and education. The direction of young peoples' everyday learning and education challenges the established understanding of learning, knowledge, and roles in school. It seems as if there is a growing distance between the culture of the school and the everyday culture of young people,² which means that the school may be experienced as irrelevant.

Even if digital competence has become a central element in the Norwegian school reform,³ schools have not sufficiently responded to the digital revolution. According to the ITU Monitor 2007 survey,⁴ Norwegian young people have become major consumers of digital media, but not primarily at school. There is little use of ICT in Norwegian schools, and if it is used then often as an annex to the teacher's pedagogical practice. There are a number

¹ *Skole og sosial web i uttakt*, Aftenposten 20.10.08

² Buckingham & Scanlon 2003

³ LK06, KD, 2006

⁴ Arnseth et al. 2007

of school development programs with the aim to create digital schools, but these are often limited to the acquisition and use of learning platforms and e-mail.⁵ These projects are based on a limited understanding of digitalization processes in schools and do not correspond to the use of media and forms of communication among young people, which means that they entail only a limited change of the established pedagogical practice.

I would argue, in this paper, that the digitalization of schools should be based on the everyday experience of children and young adults. In the following sections I will focus on the conditions of learning in the network society and discuss how this challenges the digitalization of schools.

New conditions for education and learning

In the *network society*⁶ the self is being transformed, and the conditions for the processes of learning and self-formation are changed. The development of internet, PC, and broadband technology has created a society pervaded by new mediated forms of communication and information. The new and extensive content landscape of the internet leads to a situation where mediated forms of communication, experience, and material become increasingly accessible for the self. This development provides new possibilities for a reflexive organization of the self, which is less and less restricted by its placement in a local context. The network society, where digital media facilitate a growing part of young people's development and learning, creates new dilemmas, challenges, and opportunities for educational institutions.

In the network society learning processes are not limited to educational institutions. Recent studies have focused on the informal learning processes in everyday life.⁷ An important aim of these studies is to investigate the digital practice of children and young adults, as well as the potential of these practices for formal learning processes at educational institutions. A central aspect of many studies is that participation and learning should be seen as a part of identity creation. The process of young people's learning and creation of the self consists of mediated interactions entailing decisions, choices, try-outs, and experiments in a variety of networks. Even if some researchers are skeptical and claim that young people's

⁵ ITU 2005: 87

⁶ Castells 1996

⁷ Coiro et al. 2008

activity on the internet impedes learning and development,⁸ there are many indications that young “screenagers” acquire forms of knowledge, techniques, abilities, and strategies of considerable value in a network society. A number of contributions argue that one must see the mediated practices of the net generation as learning activities.⁹ Several studies argue that computer games, which are often regarded as leisure activities and entertainment, are in fact learning arenas, where the players are challenged to solve tasks of increasing difficulty.¹⁰ In order to be participants, young people act in an arena of written texts, images, symbols and with figures that communicate, move and end up in situations that demand judgment, strategies, and imply various forms of interactivity.¹¹

Digital technology and challenges for the school

Some researchers claim that the possibilities and expectations created by new digital technologies have only to a small degree been realized in education.¹² It is a considerable challenge to implement the competencies of the net generation in schools, in particular in terms of fundamental changes in the way schools deal with formal learning processes. In a Norwegian context the new school reform, Knowledge Promotion,¹³ has set the standard for the digitalization of schools and the use of ICT. The reform stresses the importance of the new digital role of the teacher, digital competence, as well as the pupils’ use of digital tools. Nevertheless there is a considerable gap between these ideals and the daily reality in Norwegian schools. Previously there was a focus on the lack of computers, broadband connections, and internet in schools, but the problem of schools today appears to be that there is a limited use of the equipment; whereas a variety of learning platforms and e-mail¹⁴ is used, ICT is not implemented in the daily learning processes.¹⁵ It is therefore necessary to direct attention towards some of the school-related challenges and dilemmas of ICT-use, including learning processes.

⁸ Bauerlain 2008

⁹ Coiro et al. 2008, Østerud & Skogseth 2008

¹⁰ Arnseth 2008

¹¹ Jewitt 2006

¹² Giacquinta et.al 1993

¹³ LK06

¹⁴ Morten Sjøby et al at UTI express it thus: The acquisition and the use of learning platforms and the use of e-mail is in some school development projects defined as the final aim for complying with the digitalization of the school. Such an understanding does not consider young people’s actual media use and forms of communication and does not contribute to the renewal of pedagogical practice” (ITU 2005: 87, my translation).

¹⁵ ITU Monitor 2007

The introduction of internet, PC, and broadband connections has created technological challenges for the schools. The question why Norwegian schools have only to a limited degree managed to use ICT, even though Norway has one of the highest technology density in the world, is answered by Larry Cuban's technology studies.¹⁶ The school is an old and traditional institution, and the dominating discourse, supported by many teachers, pedagogues, and didacticians, has been developed in a time without computers but with written language and the textbook as the most important cultural carriers. The gap between the ICT-expectations of the new school reform, Knowledge Promotion, and the actual changes are, according to Cuban, a result of a misled technological optimism. This optimism is rooted in the idea that changes will occur automatically once ICT has been introduced in the schools.¹⁷ The demands for ICT in schools as well as the premises for its use have been made by politicians and others from outside the school.¹⁸ This upside down process of technology implementation was enacted without the participation of teachers, even though it is the teachers who guarantee the functioning of the technology in the schools. ICT has been implemented without fundamental changes of the schools' and teachers' practices, and this explains why the new technology has not lead to substantial changes in the schools. Using the examples of a number of experiments with technology at US-American schools, Cuban and Tyack show how the implementation of technology in schools leads to a situation where "computers play a marginal role in regular instruction in public schools. A one-line summary of the situation to date might be: computers meet classroom; classroom wins".¹⁹ The discrepancy between expectations, teaching plans, and reality in the schools is caused by the way the technology has been implemented in the schools. However, as different researchers and thinkers remind us, the major challenges linked to ICT in schools have a socio-cultural and pedagogical character.

Cultural and epistemological choices for the school

The introduction of ICT and new technologies in schools shows the underlying premises for education, established cultural forms, and pedagogy. The digital revolution forces an epistemological choice upon schools. Written culture, textbooks, and encyclopedic teaching

¹⁶ Cuban 1996, Cuban 2001

¹⁷ Cuban 2001

¹⁸ Arnseth 2000

¹⁹ Cuban & Tyack 1998: 121

programs have traditionally been central elements in teaching.²⁰ This tradition was revitalized and renewed during the 1980s and 90s in the cultural literacy movement, which developed in several Western countries. The books of E. D. Hirsch, *Cultural Literacy*²¹ and Allan Bloom's *The Closing of the American Mind*²² provided the movement with ideas and a direction. The books discuss cultural transmission and education, and present an overview of which works every American should know in order to participate in the discourses of modern society. Harold Bloom later edited the book *The Western Canon*,²³ which contains an overview of central works of Western civilization, works that Bloom regards as central and valid everywhere. The cultural literacy movement introduces cultural standards providing common aims and content for the school system and describes what it means to be educated or "literate." In order to be culturally educated one has to know the heritage of one's civilization. This idea of a cultural canon inspired reforms in a number of countries, and the idea of a common understanding and a common cultural frame of reference precipitates into the general part of the Norwegian teaching plan from 1993.²⁴

Today's changed context with its growth of the network society challenges the traditional educational ideal.²⁵ There is a gap between the educational ideal of the school and the life world of the net generation that is marked by a multitude of symbolic forms. The digital revolution permits the young generation of today, as the first generation in history, to build a parallel life world apart from the world of parents and educational institutions.²⁶ The personal life world is not pedagogically determined, and this is, according to Thomas Ziehe, the reason why it is so attractive for young people: "It is their personal life worlds that have become the disputed 'dominating culture' in the lifestyle of young people, and it has become so strongly legitimated that one can say without exaggeration: Traditions and cultural heritage are not longer a part of young people's socialization. The personal life world has taken over this role."²⁷ Children and young adults experience a cultural collision encountering the school's cultural educational ideal. The self-education of the net generation mediated interactions in a variety of networks and forms of learning challenge the values of the school and its knowledge monopoly. In their life world pupils find different answers to established truths, and through their networks they are able to publish texts, pictures, music, and

²⁰ Østerud 2004

²¹ Hirsh 1997

²² Bloom 1987

²³ Bloom 1994

²⁴ L93

²⁵ Østerud & Skogseth 2008

²⁶ Ziehe 2001

²⁷ Ziehe 2001: 1, my translation

animations to their public. Children and young adults are active users and present themselves increasingly as mediators and suppliers of digital content. Young people may become knowledge producers, sometimes with products that can be well argued, at other times with products that are the result of a coincidental Google search. Through their practice the net generation develops a digital competence that the schools draw upon only to a small degree and which challenges traditional notions of knowledge.

Today's pupils are *New Millennium Learners*,²⁸ and the network society is their frame of reference. These pupils live an online life, and their development is influenced by a digital culture. Through their participation in various networks they provide this culture with content and form, which has created considerable attention. In order to cope with life in the network society it is essential to be able to process large amounts of information and to place this information into new contexts. New production of a variety of mediated materials is common among pupils today, and many demonstrate considerable skills in combining texts, photographs, icons, sound files, and video clips. Young media producers utilize existing and comprehensive mediated material. Various elements found on the internet are copied and blended in order to create new expressions or representations. This is a part of young people's communication and self-presentation, and when the published material receives a response from others, the mediated material receives a new meaning through recontextualization.²⁹ The construction of digital products and their interpretation through various networks are activities that challenge the school's traditional view of originality, established cultural standards, and creativity. From a hermeneutic viewpoint the media products of young people must be seen as their own independent products. Copying, editing, and converting can be understood as creative activities, where learning is linked to the production of digital products. These products should not be understood as cheating or illegal copying but rather demonstrate an understanding of the digital conditions of knowledge in the network society.

The activities of the net generation in cyberspace, with their participation in networks and creation of digital products presuppose the acquisition of an up-to-date digital competence. If schools want to be able to use this competence, a new pedagogy is necessary. The school must shift its focus, away from the exclusive use of the textbook and the idea of a cultural canon towards a focus on digital competence³⁰ and "blended learning."³¹ The old

²⁸ Pedro 2006

²⁹ Hoem & Swebs 2008

³⁰ In the report *Digital Transformation: A Framework for ICT Literacy (2001)*, the term "ICT literacy" is defined thus: "ICT literacy is using digital technology, communications tools, and/or network access, integrate, evaluate, and create information in order to function a knowledge society"

slogan of “learning how to learn” is not sufficient. What is needed, according to Castells, is “the skill to decide what to look for, how to retrieve it, how to process it, and how to use it for a specific task that prompted the search for information.”³² In a similar vein Tapscott argues that the digital revolution requires the ability for navigation in the information society, which presupposes an ability to cooperate, research, analyze, reflect, and distribute.³³ Today’s pupils come to school with an important cultural technique, and a number of Norwegian researchers argue that this cultural dimension must be the basis for our understanding of the term digital competence.³⁴ Whereas the tendency in many countries focuses on technical abilities and on the processing of information, other aspects receive little attention.³⁵ If the school wishes to incorporate the way children and young adults use the digital format into its teaching as well as acknowledge the importance that networks have for their growing up, the concept of digital competence must primarily be understood as a cultural competence.

The competencies of the net generation and their self-education are not unproblematic and raise a number of dilemmas and challenges for the school as a formal learning arena. However, without a broader concept of competence and knowledge, a digital epistemology³⁶, which opens up new entrances to the pupils' learning and knowledge formation, the school is threatened to become inadequate with regard to the task it is meant to perform.

(<http://www.ets.org/research/ictliteracy/ictreport.pdf>). In Norway ITU has provided a broader definition: *Digital competency* consists of “abilities, knowledge, creativity, and attitudes that everyone needs for using digital media for learning and mastering in a knowledge society” ITU 2005, quoted in Kromsvik 2007: 68, my translation.

³¹ *Blended Learning* is the combination of multiple approaches to learning. Blended learning can be accomplished through the use of ‘blended’ virtual and physical resources. A typical example of this would be a combination of technology-based materials and face-to-face sessions used together to deliver instruction (http://en.wikipedia.org/wiki/Blended_learning).

³² Castells 2001: 259

³³ Tapscott 1998

³⁴ Erstad 2005, Kromsvik 2006

³⁵ Erstad 2005:131

³⁶ Lankshear 2002

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