

Words: 1941

HOW SOCIAL SOFTWARE CHALLENGES TEACHING AND LEARNING

On the internet we enjoy a continuously growing generation of web applications enabling anyone to create and publish online content in a simple way, to link content and to share it with others. The internet has become a social software platform sailing under the Web 2.0 flag, creating revolutionary changes along the way: the individual, the end-user, comes first and can benefit optimally from an environment which has the following keywords: radically user-oriented, de-centralized, collective and massive. An environment in which each participant not only listens, but can also make his own voice heard: the Social Web.

The social software tools turn out to be effective instruments also for the benefit of the playing field of learning and teaching to improve the last century's centralized models of learning with tools and strategies for individual learner empowerment through designs that focus on personalized, collaborative, networked interaction (McLoughlin and Lee 2008; Rogers et al. 2007; Sims 2006; Sheely 2006).

This way of thinking fits in with the constructivism movement within education psychology, which tries to explain why the transfer of knowledge at school often is not very successful. If you view learning as a cyclic process (doing – reflecting on experiences and new information – analyzing and understanding it – taking decisions, doing, et cetera) this calls for active learning (Simons, Van der Linden & Duffy, 2000). It calls for education with pupils and students who are curious, explore things and reach a form of profound learning, where they are taken in by a subject and start asking questions, and thus become responsible for planning their own learning process. Authentic learning plays an important role in this: a type of learning

that is closer to 'real life' (Van Oenen & Wardekker, 2005) and closer to the needs of pupils and students (Stevens, 2004).

Good education on the one hand tries to make learners acquire the necessary knowledge and information, but on the other hand also offers help with the development of skills and the use of sources that enable learners to cope with social and technological changes in society and continue learning their whole life.

Conditions

What are the consequences of the use of social software for our schools and universities, for the teachers, students and programmes and for the way we design learning practices? Which are the first obstacles to be taken? This article briefly lists some important barriers and conditions with the aim of showing the way on which unavoidable steps in the innovatory processes in education and learning have to be taken:

1. Students and pupils are to be considered as serious partners in a process of knowledge building

Young people's behaviour on the internet reveals a number of remarkable positive and negative characteristics which have to be reckoned with: they are for instance so skilled in using that technology, that they are hardly aware of it and can easily follow new developments in this area and incorporate them in their everyday lives.

Young people feel a great need to be in constant contact with others. They use chat environments and profile sites for this purpose. There they meet to talk about all sorts of things. This seems unimportant, but the opposite is true! Many young people meet for social contact and to find their own identity, as a complement to and extension of what happens to them in 'real' life. They make contact easily in various networks (friends, class mates, family, sports club, et cetera). In doing so they obviously run the risk of being bullied, excluded or publicly ridiculed.

As opposed to older generations, who find it less easy to operate in large groups and with strangers, young people consider sharing information and opinions a matter of

course. They do not want to be isolated, but like to work together. And they show a high degree of tolerance for differences and diversity. Furthermore, they like to tag, to indicate what interests them and on what subjects they would like to get more information. Co-productions with peers are quite common.

Learning as you go along is an age old principle, but with new meaning when it's about young people who are willing to try out all sorts of things for themselves (or together with peers). A mere explanation in words generally doesn't suffice for them. Furthermore, they work in a non-linear way. As they are not used to reading texts and following the course of an argument or story, they have the skills to jump through information in an exploratory fashion and still absorb its meaning. They can do this because (and to the extent that) they are also capable of defining search and learning goals. Today's youth has an extremely visual attitude and is used to fast, clear information. Young people are better at interpreting images than words.

Young people don't care very much for ready-made messages and products. They involve little challenge. They like to be involved in creating things and adding their own dimensions. Computer games, particularly if they involve collaboration in teams, are challenging and dynamic, whereas books and lectures are static by nature. The latter demand a great level of passive concentration, which is often hard to muster for young people who are used to doing several things at once (multitasking). Products, too, should offer them room to make their own contributions (prosuming).

They also want to have things sorted right away. They easily forget that one-liners rarely encourage the necessary reflection and that not everything can always be sorted as fast as they'd like.

Many students lack the competencies necessary to navigate and use the overabundance of information available, including the skills required to locate quality sources and assess them for objectivity, reliability, and currency (Katz and Macklin 2007). In addition the average college student has no clue how to navigate or investigate the modern library. Instead, students increasingly rely on Web sites and

Internet archives for information—increasing the likelihood that they will stumble across and cite false or incorrect information (Windham 2005).

If these are the characteristics of our youngest generations, what should that mean for our school programmes and the way we design learning practices?

- Education should connect more to the assets and possibilities the digital world offers young people. This would also entail making better use of young people's ICT-knowledge and skills, resulting in an increase in motivation and involvement.
- Let young people collaborate a lot, let them form collaboration groups themselves. Schools and institutions should work more with groups with peers, in which the teacher and external experts also play a part. Activities to build new knowledge together, with an important role for interactivity.
- Ensure that young people play a part in designing their learning process. Do not present the learning process on a silver platter, but allow students to take part in designing it themselves. Empiricism, relevance, responsibility and challenge are keywords in this respect.
- Schools and institutions should actively inform their students about the digital world: explaining about the internet, (the reliability of) digital sources and social software. Attention should also be paid to skills like selectively choosing information and the ability to read in a goal-oriented way, an activity involving the 'scanning' of texts or webpages to find the answers to specific questions or learning goals, meanwhile actively thinking about what's being read. Users need to employ strategies of contextualization, analysis, visualization, and synthesis that involve complex critical thinking skills (Lorenzo and Dziuban 2006).
- Students need to be provided with opportunities to learn problem solving and discovery techniques and apply what they have learned to real life problems and to demonstrate the results of discovery with the help of ICT.

2. New ways of content creation and knowledge acquisition have to accepted

New ways of community-based sharing and content creation should be applied to the more formal learning spaces of colleges and universities (Berg, Berquam, and Christoph 2007). Technically, pedagogically and with respect to content:

- Some schools have invested heavily in their own ICT-systems and electronic learning environments. These are safe, closed systems running on software for desktop computers. One of the problems at hand is how to open up these closed systems for the Social Web on the internet. To name some obstacles that will have to be overcome to achieve this: Teachers and school leaders will have to become more confident in their relation to the unfamiliar possibilities that new technologies offer. There will have to be sufficient support (web care teams) for schools in order to balance the many positive opportunities and risks of connecting closed and open systems. Managers and teachers will have to be better informed about the advantages new technologies have to offer. ICT-systems should be reliable, meaning they will always work and have sufficient speed and bandwidth, amongst other things. There should be more opportunities to actually integrate technologies in learning programmes. Working with mobile phones and iPods should also be made possible. It seems inevitable that we are heading fast for a communications world that has been typified as 'always on', in which we always have access to the web, wherever we are. Through PC and TV, but also through portable computers and mobile devices, such as smart phone and pda (personal digital assistant). The current battle between the big players in the telecom industry, hardware suppliers and service providers will not delay this result for long.
- Social software tools can be effectively integrated into both face-to-face and online environments; the most promising settings for a pedagogy that capitalizes on the capabilities of these tools are fully online or blended so that students can engage with peers, instructors, and the community in creating and sharing ideas (McLoughlin and Lee 2008).
- Much learning takes place informally, outside structured learning programmes: you ask others for help, you search the internet, you learn by trial and error while

exercising a hobby or sport, without the presence of a teacher or parent. It would be very beneficial if we could develop sound methods to consciously integrate informal and formal learning. This is very hard, however, as people tend to try and add structure to informal learning, while its strength is the fact that it is not structured, but more or less takes place in people's lives accidentally. When integrating informal and formal learning, attention should be focussed on the experiences and 'lessons' individuals have gained informally and that are related to the agenda for the formal learning.

3. Teachers and educators need to accept new ways of teaching and learning

There clearly is a digital and generational divide between students on one hand and educators and teachers on the other. This is not a real problem as long as the teachers and educators are aware of what is going on in the 'digital world' in which young people live. They don't need to participate there! In addition: teachers and tutors need to understand that they have to adjust their way of teaching to teaching practices where they need to work collaboratively with their students to review, edit, and apply quality assurance mechanisms to the learners' work while also making use of input from the world outside the classroom or institution.

Teachers giving students the opportunities to use social software tools to engage deeply with peers, instructors, subject-matter experts, and the community, need to command *personal entrepreneurship*. This quality is characterized by actual collaboration with colleagues using ICT, by good communication and collaboration skills. Their motivation rests on the conviction of what they believe to be quality education. They are able to organize themselves help for technical and didactical problems.