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Education across borders

Towards e-Didactics of International Module in Socio-cultural Aspects of ICT

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HØGSKOLEN I NESNA

Om Fredrikke Tønder Olsen (1856-1931)

Fredrikke Tønder Olsen ble født på handelsstedet Kopardal, beliggende i nåværende Dønna kommune. Det berettes at Fredrikke tidlig viste sin begavelse gjennom stor interesse for tegning, malerkunst og litteratur. Hva angår det siste leste hun allerede som ung jente ”Amtmannens døtre”.

Kildene forteller at Fredrikke levde et fascinerende og spennende liv til tross for sine handikap som svaksynt og tunghørt. Hun måtte avbryte sin karriere som gravørlærling fordi synet sviktet. Fredrikke hadde som motto: ”Er du halt, er du lam, har du vilje kjem du fram.” Fredrikke Tønder Olsen skaffet seg agentur som forsikringsagent, og var faktisk den første nordiske, kvinnelige forsikringsagent. Fredrikke ble kjent som en dyktig agent som gjorde et utmerket arbeid, men etter 7 år måtte hun slutte siden synet sviktet helt.

Fredrikke oppdaget fort behovet for visergutter, og startet Norges første viserguttbyrå. Hun var kjent som en dyktig og framtidsrettet bedriftsleder, der hun viste stor omsorg for sine ansatte. Blant annet innførte hun som den første bedrift i Norge vinterferie for sine ansatte.

Samtidig var hun ei aktiv kvinnesakskvinne. Hun stilte gratis leseværelse for kvinner, inspirerte dem til utdanning og hjalp dem med litteratur. Blant hennes andre meritter i kvinnesaken kan nevnes at hun opprettet et legat på kr. 30 000,- for kvinner; var æresmedlem i kvinnesaksforeningen i mange år; var med på å starte kvinnesaksbladet ”Norges kvinder” som hun senere regelmessig støttet økonomisk.

Etter sin død ble hun hedret av Norges fremste kvinnesakskvinner. Blant annet er det reist en bauta over henne på Vår Frelsers Gravlund i Oslo. Fredrikke Tønder Olsen regnes som ei særpreget og aktiv kvinne, viljesterk, målbevisst, opptatt av rettferdighet og likhet mellom kjønnene.

Svein Laumann

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Preface

Articles presented in this issue address topics related the initiative *Moodle for International Learning*. Within this initiative Nesna University College launched international e-learning course ‘ICT in Society and Work Life’ (ITL 103). The course was provided within the structure of ‘ICT and Learning’ studies and was based on the previous Norwegian version ‘IKT i samfunn og arbeidsliv’. The issue contains texts written by the authors from Norway and Poland who contributed to the realization of the idea of joining students of various nationalities within a learning experience supported by Moodle Learning Management System.

The opening paper is the contribution from senior lecturer Hallstein Hegerholm who originated the idea of ‘ICT and Learning’ studies and elaborated on the principles on which digital portfolio operates in Nesna University College. These principles lay foundations for the mode of work within all the six e-learning modules realized under the common name ‘ICT and Learning’. The paper presents the establishment of ‘ICT and Learning’ studies and the description of the digital portfolio.

The following contribution is made by Per Arne Godejord, the dean of the Faculty of Scientific Subjects within the structure of which ‘ICT and Learning’ studies were provided. The paper addresses the topic of distance education and presents brief history of establishing e-learning in Nesna University College. It also contains references to the process of internationalization initiated by NUC within the courses provided with the support of Moodle Learning Management System. These references are framed by recommendations elaborated on by Norwegian national policy on internationalization within educational sector.

Subsequent two papers are contributed by Polish researches from University of Szczecin: prof Maria Czerepaniak-Walczak and dr Elzbieta Perzycka. Prof. Czerepaniak Walczak covers thoroughly the issues related to the connections between the concept of internationalization and higher education settings. Dr Perzycka explores the question of competencies enabling the provision of ‘useful’ education in online environment. She refers to the issues of both teachers and students competencies through the prism of information culture and information literacy.

The final contributions are made by the researchers who actively participated in the realization of the module ‘ICT in Society and Work Life’: dr Beata Godejord (Nesna University, Poland) and dr Wioletta Kwiatkowska (Nicolaus Copernicus University, Poland). Dr B. Godejord was the lecturer in the course and originator of the idea of utilizing blogs as tools for e-learning. Her paper addresses the

issue of educational qualities of blogging. Blogging is showed through the perspective of the concept of New Learning, effective learning environment, connective learning and e-learning practices and skills. Dr Wioletta Kwiatkowska monitored and supported the participation of students from Poland. Her paper presents the analysis of students' comments on their co-students' blogs. In her analysis she utilizes the classification of interaction categories „Interaction Process Analysis” by Robert F. Bales, pointing to interesting conclusions.

The works on the development of international e-learning module ‘ICT in Society and Work Life’ are continued. In this academic year (2011/2012) one on the Polish private colleges – Academy of Business in Dabrowa Gornicza – decided to include the module in their study plans and make it obligatory for two groups of sociology students. We are looking forward to this experience and hope for developing international online studies on a broader scale.

Introducing ICT and Learning and the Developing of Digital Portfolio

Introduction

ICT and learning is a subject distributed on Internet from Nesna University College. The study is based on the Learning management system (LMS) Moodle. A foundation of the education is portfolio evaluation. To support the learning processes Guidelines of Portfolio assessment have been developed. There is now a project for internationalization of ICT and learning. This project is developed in cooperation with the University of Stettin. International students with a priority of University of Stettin and Nesna University College, cooperate in a special adapted course. One of the goals for the project is that teachers and researchers also will cooperate on and develop future courses. A foundation for such cooperation will be the further development and adaption of the "Guidelines of Portfolio assessment". This article will present the subject ICT and learning and summarize the previous work on the Guidelines of Portfolio assessment. The article is based on a socio-cultural view on learning where tools, division of labour and community are focused.

ICT and learning

ICT and learning is a subject offered by the teacher training of Nesna University College. Nesna University College is located in rural area by the Arctic circle. The location and tradition of the university college have favoured different ways of distant education. The subject ICT and learning is an "Internet-study" and deals with education of teacher training students and the continuing teaching of people working with education - especially teachers. The subject is one year of study divided into 2X 30 e-credits. Each half-year study consists of three modules of 6, 12 and 12 e-credits.

The subject was established 1984 and from 1995 also given as a part of distributed education on Internet. The education was offered both in classroom and on Internet until 2001. At that time the students of classroom had access to each other in the classroom community, the teachers of the class, the IT-support system and the teaching given on Internet. From 2001 the only option given was on Internet. In 2002 the portfolio evaluation was established. Later the use of LMS Moodle was implemented. The changes of the subject ICT and learning in the first years of 2000 was based on teachers experience and internal discussions, influence of socio-cultural theory, interviews and a survey completed in 2000.

There have been a continuous development of the content of the subject. Now the education are organized in modules which emphasizes: Basic problems in ICT, ICT as tools in learning processes, Developing digital literacy, Project work in education and ICT in work and society. The module ICT in work and society is internationalized and has students mainly from Norway and Poland.

Socio-cultural view on learning

A way to approach the use of portfolio is to analyse the learning of students (Dysthe & Engelsen, 2003). Socio-cultural theories of learning emphasize people as member of communities where social interaction and the use of tools is a foundation of learning. Man use tools to develop and change an object (Vygotsky, 1978). Leontév (1978) developed this viewpoint as a collective activity. The theory of activity is seen as development of Vygotskys theories of learning and a part of socio-cultural theories. This foundation was expanded by Engeström (1987) into a model where the use of tools where based on the interaction in community. The rules and the division of labour make the use of tools to an activity, which develop both social and individual knowledge. All parts in such an activity system interact. Third generation Activity theory deals with at least two integrated activity systems as its minimal unit of analyses. These activity systems are sharing a common part of an object (Engeström, 2001). Subjects in at least two activity systems use tools as mediating artefacts in communities based on rules and division of labour to affect the objects. The objects are developing and changing in the process where parts of the objects are partly shared. The students and educators in the activities which will be described here, can be seen as subjects who interact with portfolio as tool and develop knowledge of ICT and learning as a shared object.

Knowledge and information

To understand the use of portfolio it is important to see how knowledge and information contradict and interact. According to Wells (1999) information is second hand and can be distributed and shared. Information is an important part of the learning process, but information it is not knowledge. Wenger (1998, p. 220) points out the difference between information and knowledge: “Of course, availability of information is important in supporting learning. But information by itself, removed from forms of participation, is not knowledge”. Knowledge is personal built in a social setting. A socio-cultural view on learning focus on action, tools and community. Language is the basic tool. According to Seljø (2000) “the core of knowledge is speech and action in social context”. Wells (1999, p. 91) formulate the process of knowledge building:

Knowing starts with personal experience which amplified by information, is transformed through knowledge building into understanding, where understanding is construed as knowing that is oriented to action of personal and social significance and to the continual enriching of the framework within future experience will be interpreted” (ibid.).

The interaction between knowledge and information is described in this way (ibid.): " ... the level of information that has little or no impact on students' understanding until they actively engage in collaborative knowledge building...". Nardi puts it like this: "Cognitive science has concentrated on *information*, its representation and propagation; activity theory is concerned with *practice*, that is, *doing* and *activity*, ..." (1996, p. 14). This view on knowledge building is central in the work of customization the use of portfolio in ICT and learning.

A study of the developing process of portfolio in ICT and learning

Method and research question

The question of this research is: How did evaluation processes develop the use of portfolio?

The design of the research is founded on a case study concept (Creswell, 2007; Yin, 2009). It has a case designs with embedded units of analyses (Ibid p. 46). This kind of case study recognizes both quantitative and qualitative data as evidence in analyses (Ibid. p. 132). It also emphasize a theoretical foundation: "... the better case studies are the ones in which the explanations have reflected some theoretical significant propositions." (Ibid. p. 141).

A questionnaire of the year 2000 is central to answer the research question. The survey had 25 questions with five grades between agree and disagree. In the survey there also was three open questions, which focus on learning achievement and improvement of the given education. Internal discussions, meetings and seminars among the teachers are part of this process (Holteng & Hegerholm, 2004). The students written reflections of the study are also main sources for this analyse. In the period before the implementation of the portfolio the student's reflection on the given education were a separated expression based on teacher's questions. Later, this kind of reflection is integrated in the students' work as a continuing process. To understand the view of the students, a group of five students were interviewed in 2001 about the quality of learning achievement and the education. The description of parts of the survey of 2000 and the evaluation process is published as "En begrunnelse for endring av evaluering" (Hegerholm, 2004).

Analysing the process of developing digital portfolio

The data is analyzed as a case study research (Yin, 2009). Such an analyse will here be explanation building on a repeating case with multiple sources (Ibid p. 142). The case is the developing process of portfolio in ICT and learning which is expressed theoretically as two activities. The sources are written and spoken opinions and experiences of alternating students and teachers over the years in ICT and learning. Developing the Guidelines of portfolio assessment is an ongoing process, which has the roots

back to the year of 2000 and interviews in 2001. These sources together with the theoretical foundation enlighten the case of the developing process of the guidelines.

Evaluation of classroom- and Internet students

Looking into the answerers of the survey of 2000 and the reflections of the students, some tendencies can be summarized. On the question of the importance of your own work on your private computer and software, it was a difference of the answers of Internet students and classroom students. The Internet students valued their own work as more important than the classroom students (Hegerholm, 2004). This is reasonable since classroom students can rely on help from teachers and the IT-service on the campus. The Internet student is more alone with her computer. Internet students had to use their own computer asking for support of other distant students. Internet student had to lean on distributed cooperation. Another question in the survey asked the students if they are satisfied with the scope and angle of the working tasks. Internet students prefer comprehensive working task as foundation of teachers guiding and evaluation. Internet students also valued the opportunity of giving written explanations of the working process. Questions in the survey – one of them open, ask the students if they are satisfied with the information in the study. Internet student valued formal and detailed written instructions and guidelines in their work and in depth guidance of teachers (Ibid).

Before the year of 2000 the evaluation of students was based on a four hour written examination – the student had to handwrite answers on written questions. This was done in a large room where both classrooms and Internet students were placed together with many other students, without help or cooperation. No aids were allowed.

A comparison of the student marks, summarized by the university college, shows that the Internet students had a better result and marks than the classroom students (Hegerholm, 2000). To the teachers this was strange. The classroom students had access to both the teaching and support system of the classroom and the one on the Internet. There could be different explanations on this tendency. Motivation and age could be such explanations. Focus in the study, however, is on evaluation. The response from the students described an evaluation situation where reproduction of information was valued instead of giving credit to knowledge. Reflections on this matter were expressed in interviews in 2001. Such expressions are formulated in this way (translated from Norwegian). Per: “To write with a pencil about what we have installed and fixed on the computer seems like a vaster. It do not give credit to what we have learned.” Grete: “To try to rewrite software without ordinary aids seem useless”. Karen: “All the important work I have done with my own teaching with ICT tools is without importance on such an examination”.

An analyse of the content of examinations shows fairly 70% of the questions (Hegerholm, 2004) asked for reproduction of written or oral information. In this situation the location of the education – Internet

or classroom, seems without importance. The reproduction of books and other information has not been the goal of student's work and actions in the study. The learning process of developing achievement - for example in their own teaching, was in this context without importance. It was obvious for the teachers that the evaluation had to be changed.

Evaluation and digital portfolio

Traditionally these forms of evaluation are in use in Norway:

- ζ Oral examination
- ζ Written examination
- ζ Practical examination (vocational education)
- ζ Multi Choice (questionnaires)
- ζ Home examination
- ζ Dissertation / thesis
- ζ Portfolio

For teachers the main purpose was to leave the form of evaluation, which favoured reproduction of information. The goal was to develop a form of evaluation that gives priority of knowledge building. At this time the use of portfolio was recognized in EU (Hamp-Lyons & Condon, 2000) and developing in higher education in Norway (Ellmin, 2000).

Use of digital portfolio

According to Dysthe and Engelsen (2003) portfolio have purposes and goals for society, school courses, teachers and students working and learning process. The most important condition, in the context of ICT and learning, is the possibility to evaluate and interact on the achievement and product of students work during the course (Zubizarreta, 2009). Portfolio evaluation establishes the student's marks as an end-evaluation. This gives the teacher the opportunity to guide the students during the course. It also gives the students opportunity to cooperate and build different kinds of communities. Portfolio integrates processes, which value the student's reflections. Reflection can be feedback to the teacher and the school on the quality of the course and the teaching. Portfolio rates the student individually. This can be used to sort students according to the rules of the society. The developing of portfolio artefacts tells the school and the teachers about the quality of both students and teachers work.

A research group with members from University of Bergen (Rimmereide, H.E. and Madsen T.G.), University College of Stord/Haugesund (Husøy G.) , Sør-Trøndelag (Gjøvik Ø.) and Nord-Trøndelag

(Egger S.) have examined the use of portfolio in these institutions. Some of their main findings can be summarized in this way (Rimereide m.fl. 2009):

- Students experiencing better learning in the work with digital portfolios.
- Students and teachers report increased motivation and effort through the use of digital portfolios.
- The grades of digital portfolio examination are not better than regular analog portfolio examination, or more traditional written exams.
- Digitizations of the folders are no guarantee of sharing - sharing only occurs in exceptional cases.
- Examinations reflects only in limited degree, digital methods

In this context it is of importance to note that students and teachers working with portfolio experience better learning and increased motivation. It is also of interest that without specific guidelines the work with portfolio gives limited achievement.

Digital portfolio in the activities of ICT and learning

Based on the students and teachers experience the teachers of the course of ICT and learning formulated the first Guidelines of portfolio assessment in 2002 (Holteng & Hegerholm, 2004). These guidelines are formally discussed and revised every year. Informal there is a continuous process of work and discussions – both among students and teachers, to integrate and adapt these guidelines to new situations and challenges in ICT and learning (Ibid).

This study sees portfolio as a tool for both teachers and students. The students and the teachers are subjects in different activities. The students direct their work towards an object of work tasks, the teachers towards evaluation. In both communities the portfolios are tools to meet the requirements of the education. Portfolios are tools in both a work- and an evaluation process where building knowledge of ICT and learning are the objects of the actions. Both the evaluation process in the activity of teaching and the working task of the activity of learning has a shared object: “Guidelines of portfolio assessment”. The “Guidelines of portfolio assessment” is the shared object of the working task and the evaluation process. The digital portfolio is a tool in the teaching and the learning process. The guidelines influence on the use of the digital portfolio tools and the building of knowledge. It also guides the rules of teaching and the division of labour in the communities of the teachers and learners.

Conclusion

According to socio cultural theories the activities of teacher and students in ICT and learning are founded on actions with tools in communities. The communities have the rules and division of labour

as central elements. Learning is a process of knowledge building where information is an important part. The use of digital portfolio is directed by the “Guidelines of Portfolio assessment”. The developing of the guidelines have been an evaluation process where teachers experience and the opinions of the students, focus on these central conditions:

In the working and evaluation process *the teachers organize and distribute the information, which the students are going to use in their knowledge building.* The guidelines of the portfolio evaluation presuppose a division of labour where *working process integrate both individual responsibility and cooperation in groups.* Both processes are *certified in a reflection report.* The *portfolio evaluation rates the student as an end-evaluation where the teacher is the guide in the working process.* This foundation is implemented in “Guidelines for portfolio assessment” The “Guidelines of portfolio assessment” is now used in the international course of ICT and learning and is attached to this paper.

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Attachment

Guidelines for portfolio assessment for ICT and learning

Portfolio assessment is a form of working and assessment that are in increasing use and can replace the traditional written examination. It involves an educational viewpoint that emphasizes self-development, reflection and cooperation. However, the concept of portfolio assessment has not yet found its final form. Therefore, portfolio assessment used differently in various subjects and contexts. We will therefore attempt to describe how the Section of Informatics in the University College of Nesna wants to carry out our form of portfolio assessment.

Work Requirements

Each student will in the course of the program carry out a specific number of work requirements to cover the objectives for the course. Work requirements represent goal in curriculum, and shall be delivered to guidance and censorship in digital folders designed for portfolio assessment. Work requirements are the foundation of the students' work during the course, and will be evaluated at the end of the course.

All work requirements are individual, but still there will be required to cooperate with others. This means that work requirements can be developed in collaboration with other students, but final products shall be individual. Cooperation can take place “face to face” or “online” as a form of group collaboration. Cooperation can also be developed by the fact that students can consider and comment on each other's work, thus contributes to make them better. Students can cooperate with and can receive response from user groups and colleagues. On the basis of self-assessment, feedback from teachers, fellow students, colleagues and user groups, work requirements can be improved and changed, until submitted for final assessment. Collaboration shall be described and documented in a reflective document.

Document of reflection

Each work requirements shall be accompanied by a document of reflection, which describe the student work- and learning process. Document of reflection shall describe changes and development of the product. Such documents should always be developed as a part of work requirements. Reflection documents are individual.

Reflection document should contain the following:

- Explanation of the key point in the product.
- Description of the learning process and learning outcome
- Description of what kind of cooperation there has been
- Possible documentation of the division of labor between you and fellow students
- Description of feedback from user groups, group work, discussions with colleagues and fellow students
- Changes as a result of advice and guidance of teachers.

Otherwise, details can always be clarified with the teacher in each subject.

Guidance

Students will receive fast responses to inquiries about academic matters. For each work requirement, students have the right to one guidance from the teacher, assuming that the product is delivered before the deadline has expired. This guidance aims to strengthen the learning process in the subject as well as to improve the quality of answers. The guidance to each work requirements will be given for a limited time.

Assessment

The date for final submission of the Portfolio is set in advance. When the products are delivered, there will be a process of final assessment and determination of grade for the course. Formal aspects of assessment are described in the Examination Regulations of The University College of Nesna.

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ICT and Learning with a European View

Introduction

In the early stages of Internet as a popular tool for teaching, it was an almost universal belief that this was the tool that would revolutionize learning. As we moved towards the end of the 20th century the rapid technological change challenged the old system of teaching. Already students could follow a course and take an exam without actually being at a university or a college. In Norway many educational institutions started the process of developing e-learning programs. Today e-learning is quite common, and often we see various teaching methods integrated within some sort of Learning Management System. And while one might discuss whether or not ICT has revolutionized learning it has definitely contributed to making the world smaller, in the sense that it has brought both small and big world events directly into our living room. The sudden string of popular revolutions in the Arab world and the continuing war on terror in Afghanistan have all appeared on several social media, giving us live news as they happens.

In the mid 90-ies Internet was also used to establish contact between children i Norwegian schools and children in schools both in England and in other countries, thereby creating the first step of internationalism online as an educational tool.

So what is e-learning? At its most basic level, e-learning takes place when a teacher and student(s) are separated by physical distance, and technology (i.e., voice, video, data, and print) is used to instruct the student. A wide range of technological options is available to the distance educator. They fall into four major categories:

- **Voice:** Instructional audio tools include the interactive technologies of ordinary telephone, phone through Internet and audio conferencing. More passive tools can be sound bites included in a word document or in a web page, or in a blog in the form of podcast.
- **Video:** Instructional video tools include still images such as slides; pre-produced moving images and real-time moving images combined with audio conferencing (one-way or two-way video with two-way audio).
- **Computers:** Computer assisted instruction (CAI) - uses the computer as a self-contained teaching machine to present individual lessons. Computer-managed instruction (CMI) - uses the computer to organize instruction and track student records and progress. The instruction

itself need not be delivered via a computer, although CAI is often combined with CMI. Computer-mediated education (CME) - describes computer applications that facilitate the delivery of instruction, such as: electronic mail, fax, real-time computer conferencing, and World-Wide Web applications.

- Print: textbooks, study guides, workbooks, text documents present in Learning Management Systems, text presented in blogs and web pages, and case studies.

The northern coastal parts of Norway represent a vast stretch of fjords, mountains and islands, with many small communities. If someone wants to study at a college or a university, she may have to travel a great distance. This may not be practical if she has a job and family. Before the spread of computers and Internet connections to almost every household, a would-be student would perhaps never have been able to get a higher education at all. But today every University and College who has a E-Learning program can offer those not able to engage in a normal educational process, a possibility to get further education.

E-learning at Nesna University College

Nesna University College is placed at the coast of Helgeland, in northern Norway, surrounded by small communities. As an institution primarily involved with Teacher Education, many of our students are teachers from the surrounding communities. At Nesna University College the use of YouTube, blogs, wikis and podcast, together with the LMS Moodle and the use of project based teaching, have proved interesting as for teaching both in distant education courses and in ordinary class room situations.

Nesna University College started experimenting with e-learning in the early 1996 and used among other tools both ordinary web pages and the CuSeeMe videoconference tool. In 2000 Nesna University College started using Moodle as the main ICT tool for constructing and organizing electronic classrooms and content. From 2003 the Department of Computer Science started using the theme of sexual abuse of children in digital media as way of motivating Computer students to learn Social informatics, and Teacher Education students in the distance education field of ICT and Learning to involve themselves in building their digital competence.

And then from 2006 the department started utilizing various Web 2.0 tools as Google Docs, YouTube, podcast, Wikis, and blogs to facilitate learning both online and in ordinary class room situations. Today all of the above mentioned tools are integrated with use of Moodle and project based teaching.

ICT and Learning – Teaching teachers to be digital

Digital literacy is of increasing importance in Norwegian schools and several colleges and universities have various courses concerned with raising teacher's knowledge of ICT. At Nesna University College the program is called ICT and Learning and it aims to help to increase the formal and actual digital literacy in education, school and individual teacher educational students. It has emphasis on the use of ICT in teaching and learning situations. Students will thus be able to integrate ICT in different subjects and learning environment.

The program started out as a traditionally campus based course back in 1984, but is today developed into a flexible internet-based program for teachers, teacher education students and others who want to use ICT in teaching and training. The study is also relevant to other professions where training and education is central.

Internationalism online – from project to established module

Globalization in general and the flow of labor within the EU and EØS-area creates new social challenges and it is important that teachers and teacher education students have experience with thoughts and ideas in other parts of Europe.

The Norwegian Ministry of Education has stated that schools and teacher training are important aspects of a policy of increasing internationalization of knowledge policy. The global perspective is emphasized in the general part of the school curriculum and the principles for Knowledge Promotion. Future teachers must have a good understanding of global issues and how they require new knowledge. Internationalization of labor means that children and young people need language skills and international experience. The international, multicultural and global orientation must therefore also influence teacher education programs. There is also a goal that the internationalization of education is to promote cultural understanding and global solidarity by giving greater international knowledge and experience and better language skills.

Nesna University College states in their plans for internationalization that they are to have international perspective in their education, and that they also are to have an international perspective in their research and their development. It is important for the college that it manages to be the region's gateway to international expertise, and through various networks linking those who need international knowledge and expertise with those who can offer this. But internationalism is not only based on an independent wish of the college. NOKUT has stated in their regulations that Nesna University College is to participate actively in international cooperation in areas of relevance to their studies, and that the college should have arrangements for internationalization related to their studies.

Students in the northern part of Norway are traditionally older than their more southern colleges, many with families and steady work. This contribute to a low student mobility not only as for moving to a campus and having daily lecturing, but also moving abroad and studying at foreign universities. So how do NUC as a higher educational institution give this group international experience? How does the college fulfill the expectations of both the Ministry of Education and NOKU as for internationalization?

The solution Nesna University have chosen is to make one of the modules within the ICT and Learning program international, with English as the main language.

The module chosen as an all out English language module was ITL103 “ICT in Society and Work Life”, which is focusing particularly on social issues. The aim of the module is to train the teacher students/ teachers abilities to meet students and their familiarity with digital media in such a way that it builds a bridge between schools and children's lives. Each teacher / teacher student's understanding of and skill in the didactic use of digital media will also be important for the development of teacher students / teachers' ability to relate to children and young people's Internet use and development of identity and social competence through social networking sites and the like. This understanding and ability to relate to, and join the world of the grownups with that of our kids is central to the Ministry of Education requirements in relation to teachers' ICT skills.

The challenges that face schools and teachers as our kids get more and more digital are not unique to Norway, but are shared with many other countries. Making ITL103 international have enabled Norwegian teachers and teacher education students to learn firsthand how students of pedagogy in Poland and Spain are viewing such issues as blogging, twitter, personal privacy and kids use of social media.

The development of ITL103 from a purely Norwegian module into an international one started first in 2006 as a part of the internationalizing of Project Getting Involved. In September 2006 I invited Dr. Beata Dziejic (presently Godejord) from the Department of Media and Information Technologies at the University of Zielona Góra, Poland, to be my co-teacher in ITL103. She gave the students lectures in basic Communication Theory, using Power Point presentations. All her lectures' were naturally in English, as were some of mine. The basic goal was to make teachers and teacher education students used to the idea of English as a lecture language. The next experiment was to engage these distance students in research connected to kids use of digital media and they where sent out into Chat rooms together with Polish students, to study and document how possible abusers communicate with possible victims. The work of the Norwegian students and some of the Polish students was printed in the internal Nesna University College booklet series.

Both Dr. Dziezic and me, and the students, used Moodle to lecture, communicate and store our work.

The next step in the creation of ITL103 as an international module came on Monday the 14th of September 2009, when the Faculty of Natural Sciences, Nesna University College, signed an agreement with Institute of Pedagogy, Szczecin University, for the creation of a pilot project on international course in digital learning environment.

The course ITL103 was to be the corner stone of something the parties involved hoped would lead to Polish and Norwegian students studying and working together online within a broader range of online courses related to the field of Educational ICT. The project had the following didactic and research objectives:

- To integrate Norwegian students (from Nesna University College) and Polish students (from Szczecin University) to realize a joint e-learning course within the scope of Social Aspects of ICT.
- To work towards formulating the foundation for didactics of cross-cultural education in online setting.
- To investigate communication behaviour of course participants within the patterns of linguistic and non-linguistic modes of communication.
- To obtain an insight into the symbolic culture of digital environment with the focus on participatory mechanisms used to provide information and feedback

The theoretical perspective framing the research is Social Constructionism and Symbolic Interactionism.

The Project was to be lead by Prof.dr.hab. Maria Czerepaniak-Walczak, Institute of Pedagogy (US) and Senior Lecturer Hallstein Hegerholm, Faculty of Scientific Subjects, (NUC). Researchers will be Elżbieta Perzycka, Ph.D., Beata Godejord, Ph.D. and Geir Borkvik, HL.

In October this project was joined by the Faculty of Pedagogy, Department of Didactics and Media in Education, University of Nicolaus Copernicus. Prof. dr. hab. Bronisław Siemieniecki was overseeing the project, and the following researchers joined the already established research team: Dorota Siemieniecka, Ph.D. and Wioletta Kwiatkowska, Ph.D.

The internationalization of ITL103 was a success and on Friday the 21th of May 2010, it was signed a renewed agreement with Institute of Pedagogy, University of Szczecin, for the continuation of the international e-learning course ITL103.

Conclusion

The Norwegian Ministry of Education has vowed to work to ensure that the international, multicultural and global side are reflected and integrated into both the professional and educational development in Norwegian education in the future. Norwegian students are to be citizens of the world, and the Norwegian Ministry of Education have stated that a holistic and integrated understanding of internationalization must cover the whole field of education.

I think that we all can agree with the Norwegian Ministry of Education that internationalisation of education will lead to important contributions both to the various workplaces and also the society as such in the form of better language skills, international orientation and multicultural competence. Increased collaboration and increased opportunities for comparisons across national boundaries gives pupils, students, teachers and educational institutions better understanding of their own knowledge and abilities. By employing a broader perspective within a course like ICT and Learning, it will be a important contribution to the internationalization of education that might lead to higher quality in teaching, professional development and institution building in Norway.

Nesna University College is also taking important steps towards the framework of EUs Virtual Campus action within ERASMUS, which seeks to support the development of innovative ICT-based content, services, pedagogies and practice for lifelong learning supported by sustainable organisational, educational and economic models in higher education institutions. In order to make it easier for foreign students to participate in the international module of ICT and Learning, the college has decided to view the foreign national students as ERASMUS-students, permitting them entrance without paying any national student fees. This decision is supported by the Student Association of Nesna University College, and it is an important step towards integrating the thinking within ERASMUS with e-learning courses and thereby ensuring that the EUs goals of lifelong learning are reached also within the concept of e-learning.

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Internationalization of Education: Hope and Challenges for Universities in the Second Decade of XXI Century

Introduction and context

Emergence of a new subject of reflection and practice is done as an effect of the existence of a particular phenomenon and the problem associated with it. This is evident in relation to the internationalization of education. Phenomena and factors of globalization, such as the global market, concern for the environment, about energy resources, news, etc., as well as openness and the pace of mobility of the society involve people everywhere in the world. It is accompanied by the explosion of the new epistemological fields.

The openness of the modern world and a variety of resources and tools enabling people to direct and indirect communication generates new tasks both for the educational praxis and for the sciences of education. It broadens the spectrum of content and forms of education and socialization, but mainly increases the variety of tools of non-formal learning. This requires specific competencies. Education is facing new tasks, which are not only a response to change, but also to its anticipations. The world that is constantly changing requires a flexible approach to the feasible and as well as potential problems, to identify and resolve them with the broad spectrum of matters.

We live in exponential time (Washburn 2009). This means that the speed of changes not only exceeds the time of generation change, but the extent of change is unprecedented as never before. The term "globalization", commonly used nowadays, is too vague to reveal the sense of what indeed happens with and within and individual and what happens to human communities. Evident, as never before, is the interdependence of phenomena happening around the globe. In common uses are such magic words like: consumerism, globalization, digitalization, googelization, etc.

The existence of a network of international relations in various areas in the contemporary world creates the environment in which more and more important are the learned skills and flexible learning (stretch-learning) compared to genetic characteristics such as nationality and ethnicity. In addition to the knowledge and skills, important are the social relations, willingness to establish contacts with other people and co-operation in all conditions. "More and more contacts with people from different cultures are today a fact that affects the shape of our lives and can not be ignored (...). We must [therefore] be ready to make contact with them, be able to communicate linguistically and culturally to understand, establish non-obvious for them and for us the rules of cooperation" (Boski, 2009, p. 11). And, as Richard Sennett writes: in many places in the world today one could found qualified, sometimes even too well, labor force, 2010, p. 71). Education then becomes an important

factor in the market, but also its element. Since the study abroad has become more affordable for many people, there is a real international education market with high qualified marketers. Foreign students contribute to economy of the host countries. „The global market for high-quality international students is increasingly competitive”. (Bodycott 2009, s. 349).

The main aim of taking this issue into consideration is to emphasize that the new organization, content and meaning of education, over the borders of countries and continents is one of the factors that create new conditions for development of individuals and changes of the social order. Therefore one cannot treat the internationalization of education as a goal in itself nor just as an ornament of higher education as well as a tool of competition and competitiveness of higher education in a global world. In fact, this is an inevitable process, which is the source of new challenges for educational sciences, both for the theory and praxis.

The concept of internationalization *in* and *through* HE

According to Jane Knight, there are many different approaches towards an internationalization of education and different definitions of this phenomenon (Knight 1999 pp. 13 - 28). The definition adopted by her is widely quoted. It is assumed that the internationalization of education is the process of integration of international, intercultural or global dimension into the purpose and organization of education. „Internationalization of education is the process of integrating an international/intercultural dimension into the teaching, research and service functions of the institution” (Knight, 1999, s. 16).

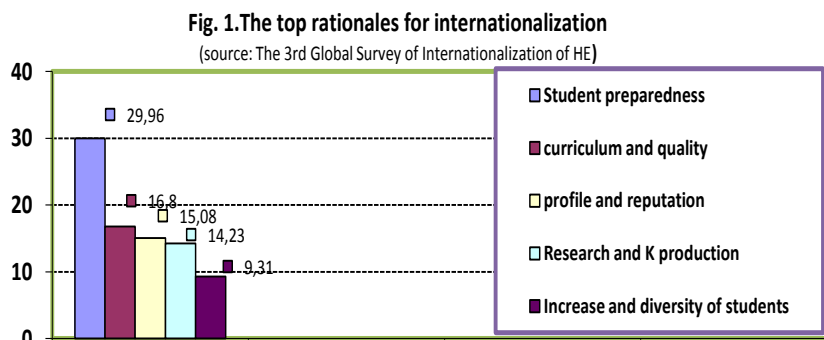
Although the concept of internationalization of education sets new directions of changes in education systems as a whole, it gains special significance in higher education. Therefore, this text is devoted to the internationalization of this level of schooling. But we should not treat it as a new and specific phenomenon in the modern era of globalization. One could even venture to say that the European higher education from the very beginning in the thirteenth century was truly international. Above all, universities such as Bologna, Padua, and the Sorbonne were a meeting place for students and masters from different places of the medieval world. However, the contemporary phenomenon of openness of communication, exchanges, or rather the coordination of market power and freedom to travel and settle has created a new face of internationalization of education. It should be noted that the internationalization of education is not the value of autotelic. It is one of the ways of promoting the idea of the humanities and core values. Therefore education has a chance to become an important factor for peace and prosperity of the world.

One could observe different approaches to the internationalization of higher education. On the one hand, it is regarded as a tool for economic, market. On the other hand, as a factor in promoting humane and democratic values. In the first approach - the market-foreign students are treated as a source of revenue for the university and the state and as an indicator in the rankings of universities.

Internationalization of higher education is therefore of interest to economic organizations and transnational interest groups (business). The matter is dealt with, among other organizations, by OECD, GATS, which collect, analyze and disseminate data on the benefits of internationalization of higher education. As an example, according to report of the Australian Department of Foreign Affairs in 2005, foreign students contributed to the Australian economy with approximately nearly AUD 6 billion (Bodycott 2009).

In the second approach, the internationalization of education is a tool for sustainable development of individuals and groups. It is very important medium and agent of individual expression and community involvement as well as an agent of individual and collective emancipation, especially for those on the periphery of the social events and far away from the cultural centre. Such possibilities are provided in particular by learning and teaching with use of the new communication technologies and distance learning. That milieu offers powerful opportunities for learning, developing of valuable skills in the modern workplace and learning place, and a more empowered conception of citizenship.

Each of mentioned approaches means, that internationalization is a real, inevitable process, not an *arte pro arte*. It has a special meaning in universities. According to the 3rd International Association



University Global Survey (2009) the top rationales for internationalization of higher education are as it is shown on Figure 1.

It looks really optimistic, that nearly 1/3 of answers pointed out improving students' preparedness for a globalised world. However, the question is, what kind of preparedness is considered. What students are being prepared for in that process, namely: for self fulfillment and for rational coping with everyday problems or for being the productive member of international manpower and the consumer of global goods.

The internationalization of higher education can be realized in various forms by teachers and students. It could be presented in the following tabular version

Table 1 Forms of internationalization in higher education

Forms	Teachers	Students	Time of attendance in the international education
Long-term stay in another country	Employment, contract	Fulfillment of the whole curriculum and obtain a diploma	Long-term (several years)
Temporarily stay at another university in mobility programs	Lectures, study visits	Fulfillment of a chosen program of study (semester / s)	Short-term (a few months)
Distance learning	Lectures and seminars on learning platforms, educational materials, consultations	Fulfillment of entire programs of study (diploma), or selected courses	Without leaving the home (country)

While the first two forms are well established and have formal and legal guarantees, the implementation of the selected courses in distance learning, meaning home courses study program and the accumulation of credits gained in this way, requires new administrative arrangements. It is very important that students have a possibility of accomplishing selected educational programs in the chosen universities (outside the home) without moving abroad. It refers also to teachers who are enabled to offer their courses as well as provide feedback online. The adoption of formal decisions on this issue is particularly important in the context of LLL and the principle of credit accumulation. In Europe, it could become one of the elements of the Socrates-Erasmus, in which 31 countries participate. This gains significance in a situation of economic crisis and weakness of investment in higher education. Dissemination and improvement of distance learning as a form of internationalization may increase an interest in 'internationalization at home' as an alternative activity to the more costly mobility or other exchange schemes.

One can see the similar form of internationalization of science/researches. It is carried out mostly through realization of research projects carried out by the employment of researchers from abroad, periodic workshops and seminars, and through contacts via the web (web conference, webinars¹, e-mailing pieces of works, etc.).

One of the form of the internationalization of HE is the activity of organizations and associations such as EUA (European University Association), IUA (International University Association), ISA (International Students Association), etc... They create platforms for exchange of experiences and implementation of international projects regarding education and research. An important role in this

¹ *Webinar* – neologism, the version of the word *seminar*, but on line

process is played by the Bologna Process through the creation of the EHEA (European Higher Education Area) and ERA (European Research Area). Participation in these areas is just one of as indications of the internationalization of universities.

Polish experience in participation in these areas is dynamical. The involvement of Polish universities and students is growing by. To illustrate it inter alia, one may show the following data concerning the participation in the Erasmus program: In 2009, more than a half of Polish higher education institutions (57.64%) participated in this program. In the first decade of the twenty-first century, the percentage of students participating in this program increased from 0.11% (in 1999) to 0.71% (2009) In 2009, 3.1% of teachers were involved in this program. In addition, there a growing number of foreign students in Polish universities. In the 2008/2009 academic year, this group of students represented a 0.9% among of nearly 2 million students. In this group, two thirds are students from Europe and 1 / 5 students of Polish descent (Higher Education Institutions and Their Finances in 2009, 2010). One could say that these data are similar to the results of the IAU report (2009): Nearly 50% of the respondents' universities indicated that less than 1% of their undergraduate students studied abroad and majority reported that less than 5% of their undergraduate students are from others countries.

The presence of foreign students in university imposes obligations on the host institution. They are the greater when the internationalization is high valued as the criteria of national and international rankings. It makes new challenges. First of all, the university, which arranges study for foreign students, is open to the particularities of their cultures, traditions, religions, and even eating habits. In this situation it is necessary going beyond the bureaucratic practices. The universities employ people with high intercultural competence, which are able to interact with people from different parts of the world. Besides the marketers, to encourage students to study in the university specialists are needed who accompanied aliens at every stage of their studies / employment, the organizers of learning the local language and culture, organizers of social life, and even helpers in dealing with daily administrative and bureaucratic matters. This generates the needs for training specialists in the intercultural relations. The demand for such professionals is not only in universities but also in many other places of work. Mobility and the existence of transnational corporations, opens new horizons of human activity. Preparing professionals to support people outside the home environment is an urgent and important challenge for educational sciences.

Another issue is the creation of transnational and trans communities, education and research. This means going beyond the particular interests of countries, but the emergence of a new corporate interests. For example, the sale in internet in USA is performed using the software made in India (Hayan Hua, 2010).

As Knight rightly emphasized, an internationalization of education is not only oriented to borderless teaching/learning practice but also should be seen as a taking into consideration the new realities in which people are learning, namely virtual and augmented reality. One could say, that thanks to the

new tools of communication, the academic world is entering the new stage of internationalization. It generates the new options and new hopes as well as further challenges.

Dimensions of internationalization of education in the perspective of educational sciences

Internationalization of HE, as the most broad and all-encompassing concept integrates many different activities such as research collaboration, many forms of academic mobility, international development projects in higher education as well as offers or changes in curriculum of specific disciplines. It generates a new organizational culture of academic education and research. Each of them can be considered separately, but it is important that they remain in close mutual relationship. Each of these dimensions affects the quality of education. They also affect the position of the universities in national and international rankings, which today is an important element in assessing the quality of functioning of higher education. The sequence analysis of the different dimensions: research, education and socialization, is a reflection of the bonus criteria for school activities, both nationally and internationally. One could point out specific dimensions of internationalization of education, namely: dimension of research, learning/teaching and socialization. These three dimensions are presented as complementary and coherent in the functioning of HE

Dimension of researches:

The main feature of science is that it is transnational in essence. This refers also to its findings, results. However, its discoveries are still closely associated with the budgets of individual states. One way to change that is the acquisition of grants for research teams taking problems of transnational importance. Members of these teams are scientists from many countries. In Europe, this takes the form of the ERA. The close relationship research and education is the base of the quality of academic education. Furthermore, internationalization of research and dissemination of their results is in the interest of each academic center, because it is the primary criterion in the rankings of universities.

As the particular object of the research we can indicate the process of internationalization of higher education. This object of the study may be undertaken by the multidisciplinary, international research teams which put new, critical questions about many aspects and contexts of internationalization of education. In recent years there have been new phenomena and trends in internationalization of HE beyond the current framework of understanding that process. The interests and expectations from a university are different in different parts of the globe New centers - hubs - nodes of education in different regions are created. So, what they are, whom they serve, how is the culture of education is specific to them, may be an interesting subjects of research on education

Dimension of learning/teaching:

These issues concern mostly of the matters like: exchange of experiences of teachers and students participating in international projects, in Socrates-Erasmus program, the dissemination of distance

learning, the formation of resources and teaching materials in foreign languages (including the language "Web").

Preparing for the participation in international education requires time and resources. The basis for the mobility of teachers and students is their language competence. Due to the fact that the contemporary lingua franca - English - is the subject of general education, as the consequence, the courses offered to foreign students are being prepared in that language. It should be noted, however, that beyond the language of everyday communication in studying the important role is played by precise language of specific disciplines. Communication in the classroom, teaching and learning in an international environment will require a proficiency in a particular discipline as well as knowledge and language skills. But one should note, that mobility of teachers and students, as well as preparation of tenders for incoming students is strictly associated with the rudiments of the knowledge and skills in the field in the mother's tongue (home language).

In addition to foreign language skills the ability to prepare and present teaching material by teachers and the ability to use of these materials by students is important. When, as the standard, is the use of network resources and materials in e-learning, to shape the skills and habits in this regard is necessary. After all, this is not yet common practice. However delivery of Programs abroad, distance learning and establishing of campuses overseas is a growing trend, but is still limited to a relatively small number of institutions and in a few countries. Under Polish law on higher education e-learning can fill 40 to 60% of the time of academic activity, but in everyday practice is still a margin of its. Also, students are not accustomed to this form of activity. As an example, I can show my personal experience in this field. My lectures placed on e-learning platform, despite the incentives, are used by 1 / 3 of students. Still visible is the attitude of ambivalence and caution against the contacts on the e-learning platform. This means that the widespread use of this form of communication requires specific skills training as well as changing attitudes.

Dimension of socialization

Personal activity in the new social circles is a source of democratic experience. Internationalization of Higher Education contributes significantly to fostering social cohesion, active citizenship and personal fulfillment. It is strictly connected with personal development in everyday life. Development of communication skills (not only in English), learning about other cultures, different patterns of everyday life and cultures of education helps to understand behavior of others and better understand of self. It conducts learning and the meaning of values. Relations in a multicultural and international environment could make easier to perceive barriers in communication and social interaction. These barriers are different in different regions and cultures. All of the dimensions mentioned above generate the new tasks and new culture of organization in education. Above all the internationalization of education starts with the new strategies and changes of everyday practice in higher education. One should be tamed with a view of the openness of the world and that we are not able to control the sources of students' knowledge. This aspect indicates the existence of informal

internationalization, one that exists independently of the official programs and goals of higher education.

The intercultural competence in the context of internationalization of HE

Increasing international mobility and cooperation requires high personal and social skills combined with an ability to create, innovate and work in multicultural and multilingual environments. One could put a question, what is first: the competence of being an active member of multicultural society or an experience of learning /teaching in borderless, multinational sites (environment)

Internationalization is a source and tool of intercultural competence. That skill is the crucial for everyday activity nowadays. Each of three components of that competence, namely: cognitive, emotional and behavioral are both, agent and medium of successful learning and teaching in international environment. An essential feature of intercultural competence is integration of own cultural identity with an openness to different patterns of culture. One of such different culture which needs the new competence is the net's environment, the culture of informative society.

The core of the intercultural competence is personal experience, but only when is dynamic, propulsive and reflective. That competence is a base in helping individuals and communities in becoming increasingly aware and reflective as well as in the develop, negotiating and sharing new understanding of the world's conditions for better education and higher quality of life.

The personal benefits from internationalization, beside of intercultural competence and proficiency in the second (and third) language could be seen as chances for self-fulfillment, develop of emancipatory competences, democratic orientation and for possibility of employment. It worth to add, that one of the new trend in internationalization of HE is the tuning of the frames of qualification with the tendency to practical professional skills.

Apart from that one can see also the benefits and values for universities. Among them are: prestige and high quality of education, strengthened research and modern, internationalized curriculum. It helps to develop a good environment for changing university as well as its subjects, namely teachers, students and non-academic staff.

Conclusions

In the world of growing interdependence as well as an open access to information and knowledge it is more important than ever before (especially in the era B[efore]G[oogle]) to learn how to expand the boundaries of learning/ teaching practice and theoretical reflection on it. Our knowledge not any more comes from oaks and beeches, it means from the nature (as J.A.Komensky said in XVII c.). Now it comes mostly from the WEB. “The exponential growth of capacity and complexity of our information processing/creating and communications devices have created enormous and unprecedented opportunities to learn” (Washburn, p. 4) . With the new tendencies in developing of the global cooperation as well as growth of new tools of communication (and, as a consequence, the new

tools of teaching/learning) the internationalization of higher education enters the second stage, or as one could say: starts the second generation (like Web 2.0). Many people around the world seem to welcome the borderless communities. For the moment, it is sufficient to argue that internationalization of HE contains opportunities not just for learning, but also for creative expression, civic engagement, political empowerment, and economic advancement as well.

Internationalization of education is thus a phenomenon that puts the institution of higher education against the new fields of reflection and generates a new experience in every sphere of the institution, namely in the sphere of education, research and organization. These experiences have become a source of new skills.

The process of internationalization is also a factor in the development of modern cosmopolitanism that is, living together across borders without sacrificing the autonomy and national differences. This protects against domination (hegemony) of one culture, leads to the formation of such a culture of education, which is the hallmark of building relationships of trust and genuine mutuality among people, who otherwise had a little of common and on that basis, create the futures which they truly desire (Senge, 2010, p. 44). It gives also a chance to implement the principle of cosmopolitanism, which is the foundation of attitudes towards the Other as equal and different. This means not only the integration of different traditions and national standards but the balance of adequate ways of relating to diversity, including differences in experiences in educational interactions, in relationships with others and with the new knowledge.

This applies not only the internationalization in the form of the mobility of students and teachers but also one that is implemented in distance learning. Meeting in a virtual classroom of students from different national cultures and cultures of learning may create unforeseen problems. They cover a wide range of phenomena: the learning styles and language communication as well as ethical aspects of education (such as a responsibility, autonomy, as well as courage and loyalty and respect for Intellectual Property Law.) It needs the special preparation of teachers and students. Important are also the international systematic research on these phenomena, although it is only one of the subjects of research. Only then it will be possible to avoid, or at least mitigate risks such as commodification and commercialisation of education, as well as brain drain and rooting out people from their national and regional culture. It should be underlined, that above all, the internationalization of education as an inevitable process has its good and bad sides. Its organization, content and form depend on academics. On them is the responsibility of implementation of the universal mission of higher education and resistance to market pressures, corporations and neoliberal ideology.

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In Search of *Useful* Education on the Internet

Introduction

While searching for answers regarding the position of school in the emerging network society, based on the continuously accelerating transmission of information, actions of teachers are aimed at building the information culture. It is this culture that enables international communication based on respecting goods, behaviors, customs and traditions of people from various nations. Culture of information is manifested by: knowledge regarding the nature of information and its functions; high level of awareness in terms of the role and meaning of information; knowledge and skills regarding the proper use of terms and ideas related to information and information processes; ability of proper interpreting of information and proper use; ability to use information coming from diverse sources – accounting for their (in)coherence and diversification; respecting information as (another person's) property, private and human goods; skill and honesty in selection of sources and methods of accumulating, processing and providing information (Materska, 2010).

The characteristics of the culture of information

Information culture within a given school is one of the factors creating rules for social life by setting own models of behaviour and actions and also creating cultural models which reflect values accepted by the given school community (Wąsicki, 1998:230). I presume that the leading part shall be taken by the information system itself, where the teacher and student shall communicate with other cultures. Acquaintance with information systems is however not sufficient in order to fully take advantage of the information on the Web. Contemporary teachers and students need the ability to communicate with other cultures since information on the Web is often published by people of a different mentality resulting from dissimilarity of their culture in relation to ours. The knowledge regarding intercultural communication alone comprises the following: knowledge of culture of a given country, e.g. its history, geographical location, customs, precepts and prohibitions, realizing cultural differences and their nature, learning the language used by individuals in a given country (Hofstede, 2000, Gajda, 2004:15). Furthermore, each culture possesses own cultural scripts regarding emotions. These can be isolated based on linguistic evidence, both lexical and grammar. The language is therefore becoming a basic tool in acquiring knowledge of other cultures.

The idea of „linguistic competence” introduced by N. Chomsky caused widespread popularity of the term „competences” in contemporary education. Its use has become apparent not only in everyday life but also in the language of science. It is used by politicians, economists, psychologists, sociologists, philosophers, linguists etc. It is ever more frequently used in education as a manner of a semantic „lock-pick”. Dissimilarity of interpretation has prompted the term to become polysemantic. Both in speech and in writing we mention competences that may be: linguistic, cognitive, social, self-creational, life-related, professional as well as educational.

The term „competences” in information culture

Using and referring to „competences” in education is becoming omnipresent and its use extremely widespread. This state is caused by the difference in range capacity – starting with the more narrow, such as linguistic or professional competences to the wider ones such as cultural or life-related competences (Dodzikowa, 1993: 25).

Key competences have become widespread due to the reform of education. They are most frequently defined as supra-subjective skills which are generally vital for successful completion of tasks related to learning, work and fulfilling social obligations” (Goźlińska, Szlosek, 1997:133).

For further reading regarding the key competences in relation to culture of information one may turn to the work by M. Czerepaniak – Walczak (1998/1999:55), treating them as a key category in the program of education, in the following areas: searching, processing and using information; planning and evaluating own learning; problem solving; effective communication, action and cooperation, organizing one's own leisure.

Social implications for information competences of teachers and students

The inherent characteristics of society implicate a high level of basic education and the ongoing process of learning and updating own knowledge. However, the very same social development does not only bring new possibilities but also certain hazards. These include social tension resulting from unequal access to modern technical means as well as differences in education and skills related to using such means. The information avalanche brings an increasing amount of content. And this is where the problem emerges. It does not pertain to the amount of information itself but to proper understanding and proper use. Information can be useful but also useless. It is considered useful in context of transformation into knowledge and wisdom. At school the teacher based on the current scientific knowledge enables the student to create applied knowledge, practical knowledge and knowledge in action since these are the kinds of knowledge the student needs. Constant, universal

values lead to excellent universal competences. In this view the teacher should possess competences for organizing such educational situations where the personal knowledge of a student (their experiences, what they know already) would be treated as the preliminary matrix for input of new information. And that new information may extend the matrix, make it more complex, enrich it further or modify it.

Information competences are favorable towards processes of transforming information into knowledge, hidden in relations between facts, attributing the proper sense and meaning to this information. The hidden knowledge turns an individual into an expert in the given branch – e.g. a teacher, combined with personality, skills and personal tact. On the other hand, explicit knowledge is one that may easily be codified. This is however possible due to information competences (described in the Prague Declaration created in Prague as an initiative of the United States during the International Forum on Information Literacy comprising representatives from 23 countries of the world, in August 2003), perceived as own knowledge regarding information needs as well as skills vital to identify it, find it, evaluate, organize and creatively create as well using and transmitting information as part of problem solving and decision making. This is a basic condition for effective participation in the information society and an element in the basic human right for life-long learning².

According to Z. Kwieciński „it is a paradox that education and lack thereof seem to influence individuals in a similar manner. In case of an educational success education gives a sense of coherence: intelligibility and transparency of the world, perceiving life as meaningful and the social context as understandable. Successful education becomes a factor in reflective balance of one's own relations with the world. In case of unsuccessful education, lack of education or functional illiteracy, self-reflection is impossible as well as reflection about the world and one's own relations with it. (...) Lack of education becomes a factor in emotional balancing of one's relations with the world” (Kwieciński, 2002:109). In the view of some pedagogues (Sawiński, 1996:14-15; Kwieciński, 1997:22; Pasterniak, 2001:7) wisdom is understood, considered and determined as the most vital (basic) competence of a teacher. „Wisdom is the source of all good and the highest good itself” (Diogenes Laertios, 1987:80). Are we not faced with both information favorable towards our good as well as negative information favoring evil? The awareness of good and evil develops in close relation with society and its culture. The criteria for evaluating and motives shaping awareness remain in close contact with social variables: living conditions, level of culture, human practice, the accepted

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US National Commission on Library and Information Science. The Prague Declaration: Towards An Information Literate Society dated 10.10.2005
<http://www.nclis.gov/libinter/infolitconf&meet/post-infolitconf&meet/PragueDeclaration.pdf>.

behavioral models, personal role models and worldview systems of a given society in a given historical time frame.

As a result the idea of good and evil has been subject to significant change over the history of different nations in different time periods, to the extent that rather frequently they appeared to be mutually contradictory (Kaczmarek, 1979:39). The competences of the teacher were often dependent on those changes and rules for shaping them. In face of the aforementioned ideas, wisdom may be perceived as „possessing the basic knowledge adequate for a given state of the world, social situation and particular articulation of human condition” (Kwieciński, 1997:22).

Consequently, information culture is a set of information-related behaviors whose purpose is acquiring through any channel or medium, the information matching the needs of the individual accounting for its wise and ethical use in society. It seems that an important element for wisdom perceived in this manner is a creative attitude towards life where creativity means involvement with everyday reality and is perceived as a value stimulating reflection upon one's own development. This in turn results in incorporating quality into professional ethics of the pedagogue profession – a form-master and a teacher. Wisdom does not really involve a large volume of information and knowledge regarding facts but rather proper kind of knowledge resulting from involvement into research and co-creating new information.

Sources of teachers' and students' information competences

The Internet information environment is becoming the natural environment of every school – and as with any natural environment – we need to care for it, prevent degradation, destruction, distortion etc. N. Postman assigns ecological character to technological changes „in a similar sense to that used by environmental specialists. Global changes arise from changes at the individual level. If we remove all animals from a given environment it will no longer be the same environment. Similarly, if we introduce animals to an environment which so far lacked such creatures, the environment shall become radically different. This is closely resembling the ecology of the media. New technology does not add or subtract anything. It transforms everything” (Postman, 1995:28).

In the school environment (social environment) similarly to natural environment (ecological), the teacher and students are forced to face various modifications and distortion of information including the state of not being informed sufficiently. The teacher is dosing portions of information suitable for the developmental capabilities of students whereas the Web is characterized with an overflow of information. There appears the hazard of omitting important and valuable information as well as pragmatical and ethical dilemmas. What personal and social benefits could result from new information and what can we or should we do with them? What kind of teacher preparation are we

therefore expecting in order to prepare the student for valuable conduct while searching, organizing, processing and providing information acquired from the Web?

This is made possible by the information competences of the teacher and student which may be developed based on the ground of information alphabetization which is not however an autonomous idea nor a set of separate technical skills such as reading and writing which may be used in context. They are rather a set of competences enabling the recognition of necessary information, ability to find information as needed, the skill to evaluate the value of information, the ability to organize information in relation to its practical use and ethical as well as legal conditions. Information alphabetization pertains to all available sources of information that we are dealing with. However, my focus is solely the phenomenon of using the Web resources by our youth which could be the source of complications at school. Shall we ask why? Ever more frequently the Web's resources are becoming the basic source of information and knowledge. This is the tool used most frequently by students while preparing for their classes and this is also what they use to communicate with each other as well as for entertainment in their free time. After all it is the Web resources which in my opinion significantly affect an individual's self-image and relations with the world.

Over many years I have been observing the behaviour of teachers in relation to introducing „novelty” into their teaching subject as well as own set of working tools and the results were rather non-uniform, particularly in the area of media education realized at schools. The strongest reform movement in this area can be observed in the USA, Japan, UK and Australia, followed by China, North Korea, Argentina and a number of European countries. In the last decade information competences have become a pervading problem and many initiatives in this area have been noted around the world.

Employers and politicians indicate at the issue of demand for development of employees possessing suitable information and technological skills enabling them to effectively complete their professional tasks. In the realm of schools, the teachers, librarians and others are working to incorporate teaching technological and information skills into the subject curriculum in order to achieve the desirable didactic results. Additionally, virtual classes are introduced with partial use of the Web as well as teaching.

Initiatives related to developing information skills require proper understanding for their complexity and preparing people for using them in practice in a valuable manner. Hence the need for preparing standards regarding teachers' and student information competences in the digital society. This shall allow them to face the demand and meet the requirements arising from everyday situations (Hurrelmann, 1994:67; Czerepaniak – Walczak, 1998/1999:53-66) in relation to acquiring, processing, storing and providing information electronically. Due to that the participants in the culture

of information shall achieve proper awareness and a satisfactory level of skills conditioning effective behaviour (Czerepaniak – Walczak, 1997:87) in the area of operations involving information.

In English-speaking literature the additional terms used in relation to the concept of information competences are: information literacy (or information alphabetization) – perceived as the ability to recognize, process, evaluate and create information as well as a series of further actions related to information; media literacy (media alphabetization, media competences) – a set of skills in acquiring, analyzing, evaluating and creating messages in various form; information literacy and communications technology or ICT literacy (competences or alphabetization in relation to information and communication technology) – meaning the use of digital technology and network tools for communication; digital literacy (digital alphabetization, informatics competences) – the ability to read and understand multimedia texts and hypertext as well as information skills. In Poland we notice a certain lack of conclusive terminological decisions in this area. One might suppose this could be the result of a relatively low interest in this issue on the side of local pedagogy. The area is most often mentioned in Polish governmental and ministerial documents, usually in the context of informatization. It is usually referred to as information and communication technology, informatic education or education in media and informatics.

I have attempted here to create an outline of information competences of the web society in order to pinpoint the educationally useful manner of using the Web resources. While attempting to find standards for information competences of the web society we encounter a number of cognitively interesting concepts: (1) Big6 Skills - (M.B. Eisenberg and R.E. Berkowitz, 1990); (2) Seven Faces of Information Literacy (Ch. Bruce, 1997); (3) Information Literacy Standards for Student Learning (AASL i AECT, 1998); (4) Seven Pillars of Information Literacy (SCONUL, 1999); (5) Information Literacy Competency Standards for Higher Education (ACRL, 2000); (6) Australian and New Zealand Information Literacy Framework, II ed. (ANZIL i CAUL, 2004).

Standardization of information competences of teachers and students in the network society

In the United States the development of various concepts for information alphabetization is coordinated by the ACRL society. As a result of research into perfecting the information competence standards due to the work by M.R. Eisenberg and R.E. Berkowitz in 1990 a curriculum was created under the name of Big6. It was a model for solving information problems including a set of skills vital for fluent and effective fulfillment of information needs. The curriculum is used to this day in numerous educational facilities. It can be successfully used at school, university or in private life. Mastering it facilitates solving a significant number of everyday problems. It is implemented in six stages where each stage is divided into two parts:

Stage one – **defining the task**: 1) determining the information problem; 2) determining information needs related to completing the task / solving the problem.

Stage two - **information searching strategies**: 1) considering all possible sources of information; 2) selecting the most suitable source.

Stage three – **pinpointing and access**: 1) pinpointing the sources (intellectual or physical); 2) finding information coming from the sources.

Stage four - **using information**: 1) working with the source (reading, listening, watching, touching); 2) acquiring suitable information.

Stage five - **synthesis**: 1) organizing information from various sources; 2) presenting information,

Stage six – **evaluation**: 1) evaluating the whole process (skill); 2) evaluating the newly created information (effectiveness).

The Big6 proposal is described in numerous international documents and used in practice by many teachers in cooperation with librarians. It combines searching for information with the skill of using it in combination with information and communication technology. In particular while completing the school tasks in accordance with this model the students learn how to use information tools for systematic finding, using, applying and evaluating information essential for fulfilling certain needs and completing tasks. In order to teach others how to comply with this model one needs to learn how to use it in practice. Teachers in the United States acquire their competences in this regard while receiving their training in colleges and universities where they are being prepared in accordance with the information competence standards developed for higher education.

As a result of work on adjusting information competence standards to each of the education levels, in 2000 the American Association of College and Research Libraries published a set of five information competence standards for higher education including twenty two indicators and expected results. The standards had been reviewed by the Association of College and Research Libraries [ACRL] Standards Committee and approved by its board of administration on 18 January 2000 at the assembly of the American Library Society in San Antonio, Texas. The standards were also supported by the American Association for Higher Education and the Independent Universities Council. The

standards of information competence for higher education provide criteria for evaluating an individual possessing information competences. They also broaden the impact of the work conducted by the task force of the American Association of School Librarians regarding the issue of standards for information competences, providing an opportunity for higher education to articulate their own information competences in relation to those contained in the K-12 set, in order to develop a continuity of expectations regarding students at all levels.

The hereby presented standards demonstrate a process where lecturers, librarians and others pinpoint specific indicators for a student possessing information competence. In the following competences there are 5 standards and 22 indicators for their execution. The standards are focused around the needs of students in higher education of all levels. The standards also name a number of results useful in evaluating a student's progress towards acquiring information competences. The results may be used by lecturers, librarians and others as guidelines for developing local methods of evaluating a student's learning. Additionally in order to evaluate basic skills of students related to information competences they should also cooperate to develop strategies and instruments for evaluation in context of specific disciplines.

Similarly in the United States as well as Australia and New Zealand effort was invested into preparing standards for information literacy. In 2001 the members of the Council of Australian University Librarians developed standards for information competences of the school pupil and student. These are obviously based on American proposals, however they also include additional areas. Interestingly, the term used therein is actually „people” instead of pupil or student since these standards are directed at a much wider realm of users and creators of information. In the Australian standards we may observe a certain inclination to closely follow the standards used in the US. However, two additional proposals had been added, namely to: 1) classify, store, manipulate and transform the collected or created information and 2) treat information competences as an initial condition for life-long learning. The former pertains to knowledge and skills regarding operations with various sources of information and the information itself while the latter focuses on shaping the awareness regarding developing one's own information competences.

In Europe similar efforts were undertaken in order to develop standards of information competences. The first body involved was UK's National Council for Educational Technology which in 1990, following the proposals developed by F.V. Winkworth³ (1977) and M. Marland (1981), and focusing its effort around the set of results approved and accepted (upon permission) from the

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Winkworth, F.V: (1997) developed a set of information skills defined as a mechanism for acquiring information from sources by evaluation, analysis and synthesis of information.

Queensland University of Technology (QUT Australia), in accordance with the Australian standards for information literacy developed by the Council of Australian University Librarians (CAUL), as well as proposals contained in the publication by P. Godwin (2002) "Measuring information skills", proposed a comprehensive structure of information skills. It is comprised of 9 actions ensuring success which is educating a versatile, flexible and self-reliant member of information society navigating the information jungle. In particular, it encompassed the following actions: 1) decide what information is needed; 2) search for information; 3) discern individual sources; 4) select information; 5) reproduce or process information; 6) register information; 7) review the task; 8) present information; 9) evaluate information. Such classes were introduced as a permanent element in the course of studies at the British Open University, Cardiff University, Cranfield University, University College Northampton, University of Sheffield and others.

As part of the effort in improving the quality of teaching using digital information, in 2004 UK's CILIP Chartered Institute of Library and Information Professionals prepared a definition of *information literacy*, as knowledge regarding when and why information is needed, where we can find it and how we can evaluate it, use it and present it in accordance with the rules of ethics. The definition contains the ability of pragmatic and ethical evaluation as well as skills vital for understanding: the information needs, available sources, ways of finding information, the need of evaluating the results of one's search, the methods of processing or ethical and responsible application of the results, the methods for presenting or disseminating the conclusions as well as managing the newly created information. The organization also created more detailed guidelines regarding the skills required in order to be competent with information (CILIP Information literacy).

The hereby presented standards pertain to preparing teachers and students for realizing tasks in the area of teaching by the use of information. Introducing information competence standards to kindergardens and schools prior to developing such competences in teachers may seem controversial. I do not possess extensive knowledge regarding the precise range of training provided to teachers in the aforementioned countries in order to prepare teachers for using standards in course of their classes. I am however convinced that in order to develop information alphabetization among students the teacher should be pre-equipped (at least at a basic level) with information competences in order to properly stimulate the development of the student in the field of using information.

I assume that the higher the level of mastering information competences by the teacher the better the student's results in everyday learning while dealing with information. When referring to digital reality I assume that the higher the information competences of teachers, the more „efficiently” they can use information resources on the Internet. What is therefore the proper relation between the teacher, student and information in order for the use of digital resources to be desirable, valuable and – „efficient”?

Summary

The development of information competences is undoubtedly one of important priorities in the worldwide system of education and has become inspiration for developing a scheme of information competences for the needs of the Polish teacher. This subject is of major importance since nowadays not only theoretical knowledge is relevant but also critical thinking and aiming at self-reliant inference. These features are currently valued in teachers who are preparing students for efficient navigation in the information avalanche and shaping the abilities to select what is most valuable and most important.

The standards are therefore useful not only for university students themselves and school pupils but also for teachers. They enable them to prepare their lesson plan in a way that shall contribute to the students' development and shall prepare them properly for their adult life. The standards facilitate metacognitive approach to learning making students able to learn, collect, analyze and use information. At the same time it is not forgotten that not every student shall acquire information competences to the same extent and at the same pace. Similarly, not all teachers shall relate to each of the following standards in the same manner and realize their classes based on the same curriculum.

According to the new approach to manners of teaching and learning it is generally assumed that each teacher should know how to lead classes at school in order to prepare students so that they would become aware of why and what they can do with information, thereby protecting the students and in consequence protecting a future generation from information un-alphabetization of which we have currently become witnesses but also participants. Therefore one matter is certain – namely, that each teacher must first acquire information competences in accordance with the accepted standards in order to properly interact with students and be able to stimulate their development. I am treating this as an overriding goal in developing information society while aiming at a future network society using the Web resources in a valuable and educationally useful manner.

Educational Qualities of Blogging

Introduction: focusing on today's learners

Over the last two decades, the development of information and communication technologies (ICTs) has introduced profound changes to social life. As a result of these changes, both forms of social communication and forms of cultural participation have been undergoing unprecedented transformations. The emergence and rapid development of social zones on Internet has introduced alternative “canons” of social interaction resulting in alternative ways of generating socially-aware knowledge. Naturally, this situation has far-reaching consequences of educational nature. Similarly to socio-cultural context, *education in all its aspects is in a moment of change, or transition* (Kalantzis, Cope; 2008). Educators keep raising questions in search for the recipe for learning consistent with the needs of twenty first century where phenomena like computer-mediated communication, flexibility and information networks are among key qualities at the roots of progress.

This paper presents reflections on blogging as learning experience tailored to the ICT-driven change. Addressed change referrers to socio-cultural framework of the practice of education defined by the term *interconnectivity*. Interconnectivity is understood here as emplacement of human interaction within information and communication networks on Internet. The content of the article is built by an attempt to frame the activity of blogging with the principles founding the concept of “New Learning”. This attempt is followed by reflections on contribution of blogging to creation of an effective learning environment. The following thoughts draw from the ideas of connective learning and connective knowledge. The final reflection relates blogging to e-learning practices and skills. The aim of the analysis is to cast light on those aspects of blogging which furnish it with the potential for creating a learning setting where the contemporary educational challenges education could be met. Blogging, as referred to in the article, was utilized as a tool for learning within work requirement quoted at the end of the text in the form of an attachment.

Bloggning and the Concept of New learning

The concept of New Learning stems from the belief in the need *for a broader view of learning and a different kind of learning; learning designed for a future* not defined yet. The design of New Learning environments is based on four foundational principles:

- 1) One-size-fits-all schooling does not work anymore. *Our contemporary designs for learning must accommodate the differences in knowledge, life experience and motivation among our learners.*
- 2) *Education must cultivate deep knowledge.*
- 3) The effectiveness of learning is reflected in learner performance. *Education needs to develop and maintains systematic focus on designing learning experiences and tracking learning processes.*
- 4) New education has *globalist aspirations*. The outcome of education, i.e. *knowledgeable competencies and sensibilities necessitated by global change* should be *applicable everywhere in the world* (Kalantzis, Cope; 2008).

The formulation of the theory and practice of New Learning has been prompted by several dimensions of learning (table 1).

The concept of New Learning, both in the layer of foundational principles and in the layer of the approach to the dimensions of learning fit the specificity of blogging. As recommended by the founding principles, the activity of blogging allows room for individual contribution from learners build upon personal understanding. Social character of blogs promotes building connections between individual contributions and related contributions from others. This provides ground for reaching broader understanding which consequently may lead to the development of deeper knowledge. Blogging is performance that can be monitored and tracked both as a process of work and as a product of work. Finally, blogs are social media of global scale. As products of individual work, they are accessible at every place penetrated by the global network of Internet. Their content can also be connected to another content placed “everywhere” on the Net.

Comparably, the characteristics of blogging coincide with the focus within dimensions of learning favored by New Learning. Blogging as learning situation happens outside the traditional classroom (new institutional location of learning). The activity of blogging, being anchored in the use of new media, promotes performance different from the mainstream schooling experience (new tools of learning). The possibility and requirements of networking one’s own ideas with another ideas circulating on Internet gives blogging the quality of social experience enhancing the possibilities for social learning (new outcomes of learning). Knowledge authority of a teacher is shifted towards the performing/blogging learners who explore the topic and create their own products/blogs (new balance of agency). Each product created by learners is personal which allows displaying individual learners’ subjectivities (the significance of difference). To create a product specific to blogging learners need to utilize elements of traditional knowledge about the construction of narratives (the relation of the new to the old). Teachers are no longer placed in their traditional role of those who “transfer knowledge”

but challenged by the new role of being managers of students learning (new professional role of the teacher).

Table 1 Dimensions of learning prompting the formulation a theory and practice of New Learning

Dimension of learning	Educational trends reflected in New Learning
The social significance of education	Education is a crucial part of economic and social progress within knowledge economy
The institutional locations of learning	More and more learning is happening outside of traditional institutions – on the job, at play, through the media, on the World Wide Web
The tools of learning	The new media are being used to promote <i>discernible changes in the mainstream schooling experience</i>
The outcomes of learning	Action and cognition is supposed to be enriched with <i>practical capability and collaborative social learning</i> .
The balance of agency	Balance of agency is shifted from the knowledge authorities of teacher, curriculum designer and textbook writer towards learners being <i>makers of their own knowledge</i> .
The significance of difference	Differences amongst learners are significant to the process of learning. Individual <i>learner subjectivities</i> cannot be placed under the label of ‘pupils’ and moved through curriculum at the same pace.
The relation of the new to the old	<i>Moments of older learning are, [...] and integral part of the world of New Learning</i>
The professional role of the teacher	Teachers are autonomous <i>managers of students learning, designers of learning environments, researchers, intellectuals and social scientists</i>

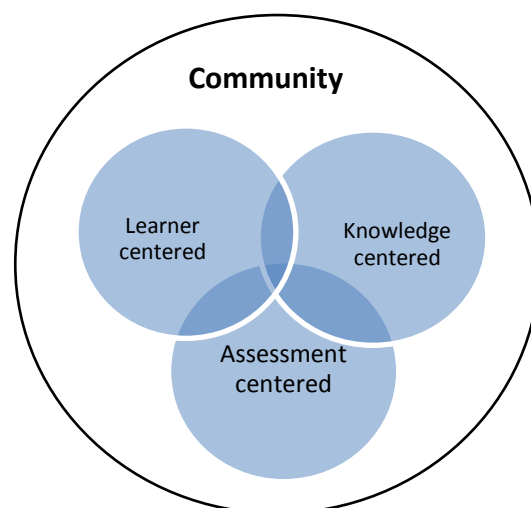
Source: Adapted from Kalantzis M., Cope B. (2008), p. 8-15

Blogging as learning environment

Learning always occurs within a context shaped by interactions between learners and learning environments (Dewey 1933, Vygotsky 1962). Therefore the question of how to provide an environment that would stimulate learning as well as accommodate a range of students' needs and learning styles is one of the fundamental questions within the science of education.

Four perspectives on the design of learning environments are distinguished (figure 1) and the importance of alignment among them is emphasized (Bransford 2000, p. 131-154). Within these perspectives the emphasis is respectively placed on learners, knowledge, assessment and community. The focus within each of the perspectives (table 2) prioritizes different aspects learning process pointing to the complexity of learning situation. All four perspectives approached as overlapping spheres give us an image of an effective learning environment.

Figure1 Perspectives on learning environments



Source: Bransford, Brown, Cocking (2000)

Approached as setting in which learning takes place blogging displays the characteristics attached to all four perspectives on the design of learning environment. On beginning constructing blog posts learners utilize their prior experience and beliefs. These form the scaffoldings of their texts and serve as a foundation on which the exploration of the chosen topics is expanded. Such springboard towards understanding locates blogging within learner-centered perspective on learning environment. The necessity to go further than one's own reflection, joined with the requirement to substantiate one's own thoughts with findings on Internet, puts learners into the situation of building familiarity with the

topic by the means involvement into cognitive processes of analysis and synthesis required to join one's own views with views and data coming from another sources. Such mode of work emplaces blogging within knowledge-centered perspective. Simultaneously this quality makes blogging step into community-based perspective where broad community is formed by Internet users who address the topics chosen by students to expand on, and a "narrow" community evolves as a group of co-learners who give feedback to one another in the form of comments to blog posts. Feedback is fundamental to learning. Blogging provides continuous opportunity to both receiving it and giving it to others. This together with the possibility of tracking the process of learners work furnishes blogging with the features of assessment-centered environment.

Table 2 Characteristics of the perspectives on learning environment

Perspective	Focus
Learner-centered environment	Knowledge, skills, attitudes, and beliefs that learners bring to the educational setting
Knowledge-centered environment	Learning leading to understanding and subsequent transfer, where transfer is defined as the ability to extend what has been learned in one context to new contexts
Assessment-centered environment	Opportunities for feedback and revision
Community-based environment	Several aspects of community and the sense of connection to the larger community

Source: Adapted from Bransford, Brown, Cocking (2000)

Blogging being both the activity and the space of work has the potential of forming a learning setting which incorporates all four elements considered crucial for effective learning environments. It sets students to process-oriented work where they have to make their thinking visible and thus encourages feedback (assessment-based perspective). Giving, as tools, the possibility of registering the feedback blogs builds in learners the sense of community (community centered perspective). Being narratives, blogs encourage individual approach to work and constructing one's own meanings (learner-centered perspective). Growing to multivoiced narratives, blogs motivate students to ask questions "What do I know?" and "How do I know It?" This triggers metacognitive processes based on cognitive involvement into dialog with other sources of information (knowledge-based perspective). With all these qualities, blogging can form a solid substructure for a learning-friendly context.

Blogging and connective learning in the digital age

So far established learning theories addressed *learning that occurred inside people*, promoting the idea of *principality of the individual in learning*. Yet in contemporary world technology performs many of the cognitive operations previously performed by learners (information storage and retrieval). In the context of rapid increase of information, learning has begun occurring *outside of people as learning stored and manipulated by technology*. Established learning theories viewed through the prism of technology do not provide sufficient explanations for learning in the digital age. Exponential growth of knowledge forces the requirement for new competencies and approach to learning. In the context where *the capacity to form connections between sources of information, and thereby create useful information patterns has become the key competence* learning theories have been moved towards a new approach called *connectivism* (Siemens 2005).

Blogging as social activity anchored in the use of social media has inherent potential for creating setting for connective learning. With the requirement for connecting one's own ideas to the ideas of other users of Internet, bloggers follow the principle of connectivism expressed in the statement: *learning and knowledge rests in the diversity of opinions*. The requirement to substantiate one's own opinions with the findings on Internet puts into practice the premise that *learning is a process of connecting information sources*. Ability to see connections between fields, ideas and concepts is considered a core skill by connectivist approach. This skill is crucial for information survival in information-overloaded world. Blogs as Web 2.0 tools are 'mashable' which allows their users transportability resulting not only in bloggers developing awareness of connections between various sources of information but also in bloggers establishing their own presence across the online spaces. This quality provides learners with training in updating their voice on contemporary online 'agoras', which makes blogging adhering to the *intent of all connectivist learning activities being currency*.

Blogging and e-Learning practices and skills

The module "ICT in Society and Work Life", where blogging was utilized as learning environment, was realized in e-learning formula. Many methodological challenges are posed by the specificity of e-Education. The drawback of the lack of the best qualities of face-to-face learning appears seemingly difficult to be outweighed by the asset of convenient and flexible access to learning environment. Yet, e-learning tends to be considered *an exceptional mode of learning when facilitated well* (Lehmann, Chamberlin; 2009). The key question remains: how to provide e-education with optimal facilitation?

As it is frequently emphasized, e-learning requires *different type of engagement* (Holmes, Gardner; 2008). This requirement stems from the fact that with teachers having much less control over educational process, students' learning needs to be much more self-directed.

Several practices and skills are postulated to be involved in e-learning process, with the purpose of securing learning outcome (fig.2). As it is pointed to, *it will be the actual context and the learner's needs and aspirations that will determine which practice or skill is appropriate* (Holmes, Gardner; 2008).

Figure 2 A flower petal framework (non-hierarchical) for e-Learning practices and skills



Source: Holmes, Gardner (2008)

Blogging as an activity tailored to specific learning goals activates vast majority, if not all, of the recommended practices and skills. To fulfill work requirements set for the task involving blogging (see the attachment), learners have to search for, select and explore independently relevant sources on Internet. On doing so, they need to analyze the content of the sources. This is the condition of creating hypertext where one's own ideas and reflections are synthesized with ideas and reflections articulated by other users of Internet. Publishing one's own texts as blog posts is a form of promotion of one's voice. In the situation where this voice is grounded in the discussion and dialog with other bloggers it factually becomes a collaborative voice. Pathway involving the above enumerated activities hopefully leads to developing deeper understanding of the topics addressed in the blog posts.

Summarizing reflection

As Suzanne Stefanac pointed to some years ago, *blogging is not something completely new, that it is not such a revolution in thought and action that we can put away all previous knowledge about human interactivity* (Stefanac 2007). Yet the phenomenon of blogosphere *has become part of popular consciousness with a speed that is remarkable by any standard* and what is more important *blogs are part of the history of communication and literacy, and emblematic of a shift from uni-directorial mass media to participatory media, where viewers and readers become creators of media* (Rettberg 2010). Such status makes blogging deserve attention from educators. Education as socio-cultural practice should naturally be responsive to socio-cultural context. Such responsiveness can only ensure what is most desirable for this practice i.e. adequacy and relevance. Experimenting with new tools and new activities has educational value on its own. In contemporary times, where what is new today becomes old tomorrow, the more we experiment with “the new” the more we develop the skill of adaptation to the constant change.

In the context of an international e-learning module, blogging appears a relevant learning strategy. Internationalism denotes and connotes communication process. Blogging is all about communication. It is about communication across the borders of multiple countries and it is about communication across the content of multiple media platforms. This communicative value, in combination with educational qualities of blogging, makes the media of blog a learning-enriching setting where the needs of today’s learners have favorable conditions to be met.

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Attachment

Work requirement 1 - ITL 103

Objectives:

- 1) To develop reflection around socio-cultural and educational aspects of ICTs,
- 2) To develop experience in using blog for the purpose of professional communication. Professional communication is understood here as communication around information related to the content of the module ITL 103

The product of Work requirement 1 is to be a blog containing 2 professional posts in English. You may develop more professional posts if you have such a wish. Yet, it's not the number of the posts that will be evaluated in this task but the quality of the posts. If you already have a blog you may use it for the purpose of this task, or you may create a new blog.

In your professional posts you are going to explore topics related to socio-cultural and educational aspects of ICTs. In the Moodle classroom (ITL 103) you will find "Compendium – Resources for Task 1" which contains introduction to suggested areas of analysis. You may develop your blog posts around these suggested areas or you may develop your posts around the topics of your own choice. Yet the topics you choose have to be related to socio-cultural and educational aspects of ICTs.

To develop professional blog posts you are expected to:

- 1) Choose topics that are related to socio-cultural and educational aspects of ICTs. You decide about the purpose of your posts and whether you want to focus on providing information or on presenting critical thinking. You may decide on either a) or b):
 - a) Provide information about the topic of your choice
 - b) Encourage a debate around the topic of your choice. If you want to encourage a debate you should formulate an argumentative topic. An argumentative topic is a topic that contains an argument, i.e. provokes or encourages dispute. All argumentative topics have PROs ("for") and CONs ("against"). In an argumentative post you should consider both: PROs and CONs, and draw a conclusion.
- 2) It is obligatory to use hyperlinks in the text of your posts. Link your statements to other web pages on Internet. This will provide support for your ideas and make the content of your posts more informative.

You are encouraged to include in your posts the content of other social media (e.g. YouTube or Scribd or 4shared, or another one according to your choice). You will find tips on how to use these media in the classroom (under the headline "How to DEVELOP a blog"). By including another social media in your posts you will make them more attractive and prove that blogging has no limits for you. This requirement is not obligatory.

Your professional posts shouldn't be shorter than ca. 20 lines of text. Yet remember, you do not create the quality of your professional posts by the length of your texts BUT by the way you make them informative. That

is why it is important to have links in your texts. Links provide the reader with further reading and prove that you explored the topic by finding relevant information on another websites.

If you feel like writing a longer text, write your text in a pdf. document and use a social publishing site (like Scribd). Publish your text there and then embed it into your blog to support your blog post. You may embed a text written by someone else or PowerPoint presentation if it is relevant to the content of your post. Yet remember, if you use someone else's documents make sure that they are meant for free use.

Blog gives possibilities for multimodal expression. You do not need to rely on a written word to express yourself. To reach visual learners you may include in your blog posts images and videos.

If you prefer speaking to writing make a podcast (e.g. using Audacity) and place it in on-line file sharing and storage (like 4shared) and then link your blog post to the sound file.

Good luck in your adventure with blogging!
Enjoy being an active member of the Information Society!
It's your turn to shape the INFOSPHERE ☺

The Analysis of Comments on Internet Education Blogs on the Example of an International Project ICT in Society and Work Life

Introduction

Nowadays blogs are becoming increasingly popular on the Internet due to their availability and simplicity of launching. Also young people recognized the potential of this form of communication. For many of them, their own web page was the first place where they posted voluntarily and it was also their first own project in life. This is something important and inspiring. They have an opportunity to express their own opinions. Is their value noticeable also for teachers and professors? Should not the science be based on learners' activity and interests? After all, a teacher with the same ease as a student can master the ability of writing a blog and make it an attractive educational medium. This is a chance to implement modern information technologies into students' teaching-learning process and to improve building competences skills for complete functioning in the knowledge society. Within an international cooperation of the Didactics and Media in Education Chair, Department of Educational Science, Nicolaus Copernicus University in Toruń and Nesna University College in Norway there were made efforts to use the potential of modern technologies in the didactic process. Hence, the employees of Nesna University College wrote the curriculum of the subject called „ICT in Social Life”, which was run for almost two semesters in the e-learning formula on the Moodle platform administered by the Norwegian university. Within the subject, teachers and students (Norwegian, Spanish and Polish) were given an access to electronic classroom which included education materials and information related to the implemented subject. The issues focused on the notion of the information society with the distinction of the following thematic areas: socio-cultural aspects of ICT, educational aspects of ICT, ethical aspects of ITC. Working in a course on the Moodle platform required maintaining a thematic blog related to the content and objectives of the subject.

The project used the method supporting the learning process, which is an e-portfolio, using one of the Internet means called blog. This method helps learners to write down the achievements and learning objectives as well as to monitor their progress and personal development in the educational and professional context. A properly designed e-portfolio enables the learner to assess the progress, to present acquired competences and skills related to them. Its main advantage is the possibility of easy modification and presentation of selected areas depending on the context. It allows to write comments dynamically and write down reflections which significantly individualizes the learner's work.

Discussing the issue of modern information and communication technologies in relation to modern education is one of the duties of the scientific environment dealing with the problems of media pedagogy. Practical experience gained during implementation of this international education project as well as my knowledge derived from experience, literature, conferences, training and countless interviews enables me to deliberate on this issue focusing mainly on the analysis of the comments on the Internet education blogs on the example of the international project "*Pilot project on international course in digital learning environment*", which was also attended by students of Pedagogy in Toruń.

Explanation of terms

Blog in the *Dictionary of Media Terminology* is referred to as the „journal (diary) written on the Internet, a kind of a personal Web page, where authors place the records of their current experiences and thoughts, and different, interesting, in their opinion, information” (Pisarek 2006, pp. 18-19). Hence, it is a frequently updated website consisting of dated entries arranged in reverse chronological order. Blogs became popular in the late 90s of the 20th century. There are various types: personal diaries – with a free access, shared and commented on by visitors or with a blocked access, *silva serum* – being a set of various news and links to other Web sites, professional – dedicated to a project or a scientific problem, having the character of a diary or a log of other people’s statements maintained by the author of the blog (Ibidem). Similarity of a blog and a diary is significant and it is primarily to its fragmented and hybrid structure (cf. J. Grzenia, 2008, p. 155). Differences are also important and worth noticing in the analysis of the topic. First of all, blogs are publications, texts intended to be spread on the Internet. Moreover, bloggers are aware of the fact their entries will be commented and they fully accept that. Thus, the interaction is embedded in the structure of the blog. Comments on the blog are primarily textual, but they can include images or other multimedia content, too. Blogs can be also defined as an environment of social interaction development thanks to the opportunity of leaving comments on individual posts (entries) initiating the conversation. Moreover, blogs, on the contrary to discussion forum, is moderated by their authors which is reflected in full control over the emerging comments and ability to delete them. Blogs are a good solution for creating and sharing content on the Internet. Writing a blog helps students to organize their thoughts. While writing, they deliberate, slow their activity and acquiring facts down. They begin to look for references, ask questions. The undertaken actions are getting more and more important. Awareness of learning is becoming greater. Reflecting on the new problem is a challenge for the learners which releases their genuine creativity, independence and responsibility.

The analysis of the comments on students’ education blogs

To conduct a detailed analysis of comments on blogs I will make use of Robert F. Bales’s classification (1950, by: R. Savolainen, 2010) called Interaction Process Analysis. IPA allows for a detailed study of the constitutive acts of interaction in small groups. One can distinguish interactions

having positive or negative emotional reactions, posed questions and given answers. In the paper I ask the following questions:

- *whether and to what extent the interaction between blogs' authors and readers are acts which show the positive and negative emotional responses In relation to the issues discussed on blogs?*

Out of 54 blogs of the project participants I chose only 24 which included comments from other participants In the group In relation to the presented content. Blogs, which were taken into consideration, were publicly available and focused on the topics covered in the project. They received at least two comments which are evidence of interaction between bloggers and readers. In total, there were 89 comments left by the project participants in which I distinguished:

- A. Socio-emotional comments In the field of positive reactions:
 - 1. sympathizing, raising the status of others, helping, rewarding
 - 2. relieving the tension, jokes, laughter, satisfaction
 - 3. agreement, display, acceptance, under standing, sparing opinions, unanimity
- B. An attempt to answer the questions:
 - 4. suggestion, direction, autonomy for others
 - 5. opinion, evaluation, analysis, expressing emotions, action
 - 6. orientation, information, repetition, clarification, confirmation
- C. Comments on the formulated questions:
 - 7. attitude to the given answers (concerns: information, repetition, confirmation)
 - 8. attitude to opinions, reviews, analysis, expressed feelings
 - 9. responses to suggestions, the directions of possible courses of action
- D. Socio-emotional comments in the field of negative reactions:
 - 10. disagreeing, passive attitude, refusing help
 - 11. expressing tension, asking for help, withdrawal
 - 12. antagonism, lowering the status of others, defense of one's own opinions, position.

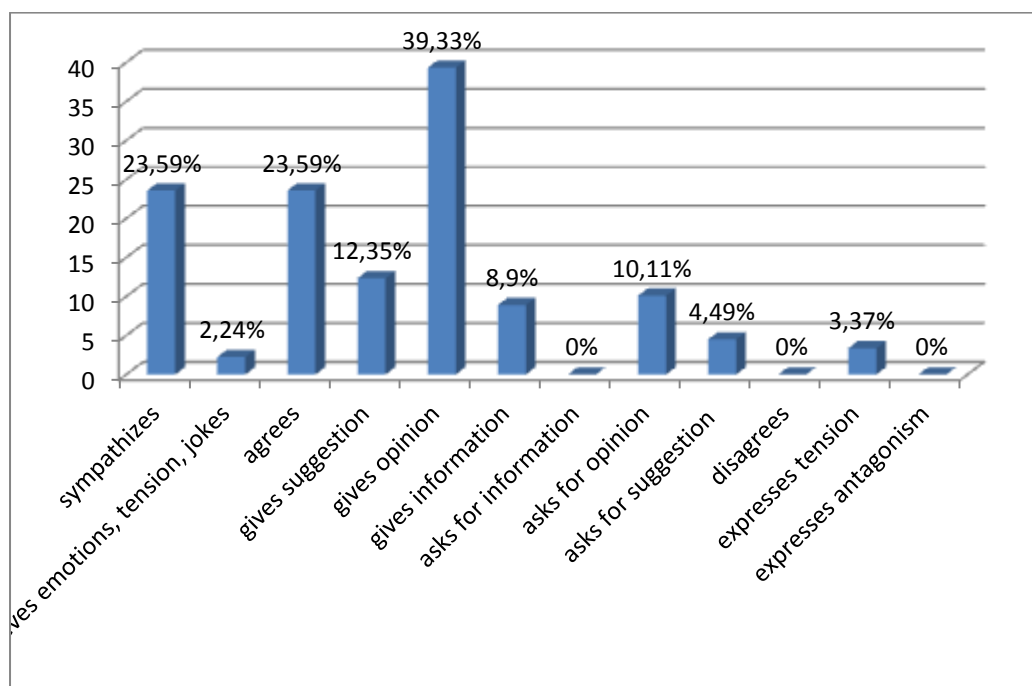
The results are presented in Table 1, and their graphic representation in figure 1.

Table 1. Numerical and percentage distribution of interaction on education blogs (the number of IPA is assigned to the comments category – 89)

IPA categories		Comments on blogs (n=89)	
		Number n	%
1	sympathizes	21	23,59
2	relieves emotions, tension, jokes	2	2,24
3	agrees	21	23,59
4	gives suggestion	11	12,35
5	gives opinion	35	39,33
6	gives information	8	8,9
7	asks for information	0	0
8	asks for opinion	9	10,11
9	asks for suggestion	4	4,49
10	disagrees	0	0
11	expresses tension	3	3,37
12	expresses antagonism	0	0

Source: author's own study.

fig. 1. Percentage distribution of interactions on education blogs.



Source: author's own study.

Quantitative analysis showed there were many positive comments. The highest percentage of comments, as presented in the bar chart above, are participants' opinions (39,33) presenting a subjective perspective of both bloggers and readers, in which they referred to personal feelings, experiences and views. Such a large number of opinions may be the evidence for assertiveness of project's participants and has a relation to their intrinsic motivation and understanding of the content. I must admit, the learners engaged in valuable comments. Here are some examples:

„Ole Martin sa... Magne, you've got many important thoughts about the topic! I also fear that today's users of internet blindly trust the information that they can find. So it is our responsibility as teachers, parents a.s.o to help users how to use the net and to look at the content with "critical glasses".

„G. Gjertsen sa... I think there are a lot of people feeling the same way as you do in terms of using gadgets with directions leading nowhere. But, isn't there also the ability to choose? Some people love chatting with people on Facebook and pretty much spending most of their free-time online, while others shut-off the computer after work and do not switch it on again before the next day. I think it's important that we actually have access to information wherever and whenever. But, I think that it's just as important to choose yourself how much you want to participate. I'm not a member of Facebook, and I think that suits me well. But, others might feel that Facebook is important to them". "Aina...Thanks for the comments. If I think back to my own childhood, before access to the digital media, I see that we lived in a society where parents had a great opportunity to protect their children from knowing about all the killings and violence that took place in the world. There were 2 news broadcasts a day, they came at the same time every night. If parents made sure that no children were around to watch the TV, that could be enough to protect their children from a world with war, violence and murder. I grew up on an island, and we only had access to the local newspaper. If the front of the newspaper was full of misery, my parents could easily protect me from seeing it. Today we can try to protect our children as much as possible at home. But the kids will anyway be exposed to this at school, at the store, with friends, etc. No parents want their children to experience being bullied online, or to find that one's own children bully some other children on the Internet. What are the attitudes we are able to transmit to our children / pupils about this subject? What can schools do? Internet is here to stay, we must teach our children and students how to live with it. But, how do we do it? What can we do for our children, as parents and as a

teacher in today's schools, in order to best prepare kids for what's going to meet them”.

„Hi Magne :-) Your reflection touches a very important and serious problem of digital divide and social polarity within the information technology revolution. In your final conclusion you draw attention to the fact that technology itself is neutral. It's always people who make it ether "good" or "bad". It's not technology that misuse people but people who misuse technology. Our Information Age is very challenging. Our times are probably most complex ever and very changeable in it's complexity. I like the motto for your post very much. I think we live in both, in an era of change and a changing era. BG:-)”.

Among the opinions there were two which may be defined as constructive, factual, reasonable and objective. Here is one of the examples:

„Facebook and Nettby has become an arena for both youth and adults. We tell the whole world about our own little world. We share photos of most private character without giving another thought. I find that many people are very inconsiderate about what they post on their status and to what pictures they choose to share with the world. Because it's just what we do. I must admit that when I created my Facebook account, I was very curious about what this would bring me. And when the first friend requests from family and old school fellow students came in, I was very pleased that I had let myself be influenced to join in. After using Facebook for a while, I have seen the drawbacks of having an account there. Whether you want to or not, you get a lot of information about what the "neighbours" are doing at any given time, some of it things you'd rather not know about. For example, it's really not interesting to know when your "friends" are eating, resting, exercising, sleeping, etc. Then, later on you find yourself sharing the same type of information.

Is this really the way our use of Facebook was intended to be? Perhaps the intention was that we should share knowledge on Facebook, not gossip? I'm just asking. Computers are the future and the schools face a great challenge in adapting to the cultural and social changes in our society as a result of ICT. The schools must ensure that they have the technical equipment and skills to keep up with development, this is key. The children are often ahead of adults when it comes to computer expertise. ICT has changed all forms of communication, problem solving and also how we organize and plan everyday life, at school, at home and in businesses. Not many years ago we had to bring

up a paper phone directory to find a phone number, today we send an sms and the number appears on screen seconds after the request is made. We don't have to remember our appointments anymore. We write our appointments in the phone calendar and an alarm will tell us when an appointment is coming up. We are carry the cell phone with us everywhere. If we are unfortunate to forget it at home, we feel handicapped.

We can read newspapers on the web, we do not have paper newspapers. In the past we had only one news channel. Now we can choose from many different channels. We can also choose when we want to see it. We can even go online to see or hear the news, at any time of day. There has been a tremendous development.

Many companies use solely computer technology where a few years ago the work operations were carried out by manual labour. Even peasants have replaced their labour with milking machines. Such technological progress means that many have lost their workplace because of the new technology, but it has also created a lot of jobs which require different knowledge. With it comes the challenge for schools to be able to adapt to the ever-increasing technological progress. It would be very important that teachers are offered studies in ICT, so that we can develop our skills. This is the only way we will be able to follow the development is happening in the area.

Using the Internet makes it difficult for us as individuals to remain private, as each click leaves a trace. If we post pictures from a party on the net, they will never disappear. They will always be out there somewhere. And when our children or our pupils post pictures of themselves and others that they should never have posted, it cannot be undone. Youth make movies showing gratuitous violence and post it on Youtube. It seems that it is only their imagination which can stop them from doing wilder and wilder stunts. The morale sinks lower and lower. Both as parents and as teachers we need to teach our children and our pupils how the Internet works, and how to be more aware of what they should publish on the Internet. And way they should be aware of it.

The children must be given this knowledge at an early age. Today we start with this when children are about 14 years of age. But we know that younger and younger children adopt these media on the Internet, younger and younger children open up an account on Facebook, Nettby etc. Children not more than 7-8 years have different forums in which they talk with each other. We must realize that information about what the Internet is and what actually happens

when we log on to the Internet must be given to pupils at a much earlier date than the case is today. We cannot stop the development, but we must try to limit possible damage.”

Students frequently sympathized with other readers' entries (23,59%) agreeing with their opinions:

„[tullipanen](#) sa... Good luck, Tormod. I'm snooping around all the blogs as well, looking for ideas and thoughts which might provoke or interest me. Una”.

The great number of comments show the readers agreed with the information presented in posts (23, 59%):

„G. Gjertsen sa... Hi bigtwist! Thank you for your comment. Yes, I hope you are right. It would have made all the information surrounding us so much easier to comprehend, if the media became more aware of their stylistic use of words and idioms when reporting news. Hopefully they will be more aware of that in the future, so we (as information receivers) don't need to spend so much time with filtering out the credible from the non-credible information”.

„Hi Monica :-) These are important reflections and important discussion. I hope more students will join it. Dette er en god start :-) B.G.”

“Hei Arild :-) This is an interesting reflection related to cultural aspects of ICTs. Internet gives opportunity to speak up to everyone who's connected. This is a great opportunity of course and many people use it. Yet the question is how people use it. Blogs have great potential as tools for communication and you may use this potential also in the professional field. This is in fact what our study is about :-) BG”.

Terms „suggestion” and „opinion” differentiate significantly. Suggestion is defined as neutrally emotional tone which was limited only to consider applications or give aid. As far as suggestion is concerned, there were also some ideas how to solve some of discussed problems. Here are the examples:

„Nina sa... Hey Arild! I can see we have got the same fundamental thoughts about blogging, we are sceptic... Even so we have both started blogging, and maybe it can lead to something useful. I've decided to be

open-minded and am trying to show some enthusiasm about our task at ICT103. Let's help each other with the blogs”.

„Kjærsti said, „ ...It seems to me your post has a lot of points which should be taken under further consideration, Elisabeth. Unfortunately, not everyone is aware that promised not to publish photos or videos which might be offensive or without sb's permission. Here's the link to the web page for children, youth, teachers and supervisors as the target group. It might be useful for you- the teacher-to-be:) <http://www.medietilsynet.no/no/Trygg-bruk/>”

“Hi:-) In your post Siv, you ponder over the problem of digitalization of contemporary social life. And you try to analyze the problem from 2 perspectives. This is a wise approach. There are always 2 perspectives, if not more. In fact, there are numerous perspectives from which we may shape our point of view. And this is the aim in our course - to try to catch various perspectives on what is going on in contemporary society and culture. Being open to various perspectives usually helps to understand problems better. You Tormod made a good point - ICTs are only TOOLS. It's the users who decide whether these tools are going to make the quality of life better or worse. Have a nice day both of you :-) BG.”

In the analysis of the comments there occurred some entries which were giving information (8,9%):

„My passion is people, or rather studying people. I cannot resist studying the way people behave (react and think). And I think our passions have something in common as I find it extremely interesting to study people through images (both photographs of individuals and social situations as well as images qualified as visual art). This passion of mine is called visual anthropology. You may have a look at this post <http://godejordb.wordpress.com/2008/09/26/why-do-images-are-so-informative/> You'll find there some reflection of mine on visual communication. BG”.

„[Else](#) sa... Hey! Blogging is not often about toilet visits and fodd habitants... that is more common in virtual societies like facebook. Blogging is more like a public diary, thoughts and opinions. Many blogs is

about hobbies, where people with same interest shares their work, like my blog :-))My blog is about sharing hobbies, but also about showing relatives, far away, special things our family do! Good luck with blogging! Maybe you get hooked!?"

„Hi:-) Both messages (the one in the picture and the one in the text) trigger a lot of reflections. I'd like to recommend some enjoyable reading to both of you - a book written by Thomas Hylland Eriksen (a Norwegian professor, University of Oslo). The title is "Tyranny of the Moment: Fast and Slow Time in the Information Age". My little voice tells me that you may find it interesting. BG :-)"

What is interesting, there were no comments as king for information. It shows students tried to gain source materials and cope with the subject for their own

The attention should be paid to comments in which readers asked for opinion in relation to the presented discussion (10,11%). The evidence is as follows:

„[OleG](#) said... I agree. But I wonder, do children of today carry the same curiousness as we did when we were that age? I sometimes look at the children here where I live, and, in my opinion, they are not as curious as I remember I were at that age. My brother and I invented cars and all kinds of vehicles from Lego and batteries and whatever we could find. When computers came, I had to disassemble one to see what was inside. Are children in other countries more curious than children in Norway? Has our wealth taken away our ability to be creative and curious? Or is the difference also noticeable in cities versus countryside? Maybe it's all inside my head? What do the rest of you think?"

“You say you are a pragmatic guy. Eh, I envy you. I've always wanted to be pragmatic (never managed :- (Well, I'm also painfully "traditional" :- (If someone asked me how I'd like to learn I'd say "I want to walk with Socrates", Yes, this is what I want! (No bullshiting). But is that possible? Well, we have to face reality somehow. And is that easy? Everyone tends to have their own reality (I believe, social constructivism they call that belief), additionally we have virtual reality, not to mention real virtuality. But coming to the point, this post of yours is a good (I mean it) start for developing one those 4 substantial posts we're supposed to struggle with in this course. I do hope you will not abandon it :-)BG Ps. In fact the content

*of this post could make a thread for joining all the 4 course-related posts.
What do you think?''.*

In the analyzed comments, there were no entries showing disagreement or mutual aversion or dissent. There were only three statements showing anxiety or tension because of lapse of time and necessity of fulfilling the task. :

„Christina said, ... Thanks, Heidi:) I wrote my concerns on the blog not untill this weekend Hus, it's too late for tips . Well, nothing can be done... being late, student's. The analysis of the ICT issues also took me much time ... I'm almost finishing now☺Greetings, Christina.”

„Hei Geir:-) That's the spirit! Looking forward to reading your posts :-)BG “.

“Hi :-)That's the spirit! The most important thing about communication is the intention to communicate (I believe). BG :-)”.

Analysing the comments, I noticed interactions were initially provoked by the teacher. On some of the blogs first comments appeared only after a few hours, while on others the readers reacted only the next day, or even a couple of days or weeks later. More entries and longer dialogues occurred as a result of readers' questions and bloggers' answers. The results show that emotional reactions published on blogs were mainly positive, negative ones were really marginal. I also realized comments are significantly useful in building sense of unity of the Internet education group attempting to reach the same learning objectives. What is more, they are a great means of searching and exchanging information (experiences, knowledge, skills, etc.). On the contrary to the Internet discussion forums, issues discussed on blogs are based on personal projects executed by individual learners. The main advantage is that interactive blogs may provide emotional support in exchanging opinions In terms of supporting the learners' actions in their work on the projects published in the form of blogs. The analysis of comments indicates blogs were predominantly used for exchanging opinions and suggestions. Students readily shared their views and experiences which is very valuable. Social character of learning requiring exchanging opinions is present here. The learner feels the need for discussing some opinions and views which come to existence in the process of cognition. They are accompanied by doubts which need additional explanation. Self-control during the process of learning demands comparison between the learners' and other participants' progress. The theory of social learning (A. Bandura, 1972, p. 100) explains how to make and develop blogosphere through observation and following the structuring. Reading lots of different logs helps to improve one's own workshop. Readers' posts may motivate to leave comments on own blog regularly. Mutual interaction is extremely important. Additionally, acquiring skills by learners does not have to be connected with

doing practical activities. Often the mere analysis of an observed activity, taking into consideration a defined theoretical problem, is sufficient.

The theory of cognitive development is worth mentioning here (L. S. Wygotski, 1978), which emphasizes the role of environment in the intellectual development of a human, claiming that learning takes place during social interactions with a teacher and peers. The theory consists in building knowledge through discourse e.g. about the nature of blogs. A learner facing a difficult task, supported by teachers and more talented students, is approaching a sphere of the closest development, in which learning takes place. In relation to the Internet diaries, having interactions with less motivated and less cogitative peers, is unavoidable.

Bloggng is definitely favourable to practical realization of multidimensional learning and teaching concept. (W. P. Zaczyński, 1990, p. 49). Complex implementation of teaching methods together with different didactic means allows for learners' multi-activity, therefore their multidimensional personal development. As the name itself indicates, multidimensional education postulates to break unilateral didactic action and its consequences. It is gained through using diverse ways of teaching by the teacher. However, accuracy of the method used by the teacher in relation to the teaching content is the most important. I will try to discuss these three pillars of multidimensional education in relation to the process of writing a blog in which the following phenomena occur: acquiring knowledge, solving theoretical and practical problems, and at the same time experiencing social, moral, aesthetic content and action. Let us focus on the following forms of activity:

- *Intellectual activity*- bloggers need to display more intensive cognition activity. There is a predominance of the written Word here, that is the audiovisual language. The written word – according to Grażyna Wiczorkowska (2004) – is less fugitive and promotes reflection, allows for deliberating , re-reading, which is not possible in direct communication. Reading texts gives learners more control over the pace of acquiring knowledge.

- *Emotional activity* – consists in experiencing cognition, aesthetic and social values which are available to the learner. However, particularly valuable are the new values generated by learners in familiar fields. Teachers using blogs are deprived of non-verbal tools allowing psycho-emotional stimulation. Teachers, left alone with the psycho-emotional sphere of teaching, have to change their education and didactic activities adjusting them to changeable teaching conditions. The key role is played by teachers who should emphasize their presence. Frequent contact is extremely important, which helps to maintain learner's interest and high motivation. In addition, the far-reaching directness of expression and personalization of the language is applied here.

- *Practical activity* – versatility of education is expressed in different forms of work. This element increases the attractiveness of learning. Creativity takes place here because the learner and the teacher have the opportunity to create their own multimedia posts, complementing their knowledge this way. Learners' task is, for example, to describe examples of everyday life, in which one can observe truths described in literature and participation in a discussion. It should be noticed

that learners appreciate the opportunity to become familiar with readers' examples, and thus it must be remembered the initial tasks should be easy and encouraging for further work.

The theory of multidimensional training draws attention to the importance of shaping learners' experience for cognitive process. Learning through experience is understood as "accepting a definitive recognition of the presence of emotional experiences in the learning process" (Wieczorkowska 2004, p. 49). Emotions support human memory. The theory of multidimensional training provides for creating such teaching situations in which the learner can experience emotional content made available to him by the teacher. Wincenty Okoń defined creating such situations by teachers as exposing material or an exposing method. However, Zbigniew Włodarski (1969, p.37) argues that "emotional attitude to the object of perception designates, to some extent, both quantity and a type of stored content, influencing what is stored in memory." The richer expressive means, the richer experience of students exposed to this measure, the truer and more lasting the memory. Thus, exposing of material is a way to induce the experience related to aesthetic, social and moral values.

To make the knowledge not so uninteresting and indifferent to learners, it should be so expose that a variety of related and hidden values should be revealed. Teaching cannot be only intellectual, axiologically neutral. There exists necessity of referring to the strategy of exposing in education and discovering a didactic role of emotional experiences. Associating cognitive content with the emotional experiences is present in problematic teaching. We should take a look at this method, at least because of its emotive values (Zaczyński 1990, p.104). Experience in problematic teaching is an integral part, the internal mechanism of action. Solving the problem provides an opportunity to experience cognitive values, to experience the discovery. Deciding to write a blog, authors take a challenge devoting their time, effort, commitment to do something creative, which focuses around group of people. Writing a blog helps students to organize their thoughts. While Whiting, we Wonder, Hus our action, acquiring the facto slow down; we Begin to look for references to ask questions. What we do is getting more and more important. The awareness of learning is greater. Thinking about the new problem is a challenge for the learner, which releases his genuine creativity, independence and responsibility.

Conclusion

Blogs should be treated as an educational environment, which property used in education by the teacher can affect its new quality. Interactions between learners, creating constructive comments and sparing their experience is extremely important, which definitely took place between the participants and the international project "ICT in Social Life". Basing on that, I draw the following conclusions:

1. Writing a blog is an introspective process, which allows for insight into oneself and the presentation of the problem from author's perspective.
2. Blog is a tool supporting the problem solving process.

3. Participants of the blogosphere affect the process of flaming knowledge by the learners, allowing them to go beyond their limited knowledge, skills and experience.
4. Blog is a chance for effective communication between the „digital immigrants” – as Mark Prensky named the teachers – and „digital natives”, i.e. the young generation of learners.
5. Teacher! Encourage students to think, express their own opinions and beliefs. Let them express their thoughts in a more advanced form than the SMS text message.
6. According to Albert Einstein’s maxim, it is worth „trying to create conditions in which young people can learn!”

The analysis of comments was made only on a small fragment of the blogosphere. Despite the fact, I am convinced that research in this field should be continued, analyzing a larger number of blogs in order to define their role and importance in the process of teaching and learning. Such actions will help to conduct deep reflection on the undertaken subject, gain new experiences and draw further conclusions for didactic theory and practice.

To sum up, it should be emphasized that learners who write on blogs try to understand, not just to memorize the content and they try to apply it to their previous experience. It is possible to modify the beliefs and knowledge. As a result of interaction with other learners in this formula, one has an access to different points of view, reshaping and discussing the ideas this way. Thus, implementing modern information technologies allows improving skills essential for complete functioning in the knowledge society.

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