Student's Use of Weblogs

Weblogs for Collaboration in an Educational Setting

Thesis Submitted in Partial Fulfilment of the

Requirements for the Degree of

Candidata Rerum Politicarum

by

Kristin Helen Andersen

Department of Information Science

University of Bergen

January 2004

Acknowledgements

Several people have been taking part in the making of this thesis in various ways, and I would like to use this opportunity to show them my gratitude.

First I would like to thank Barbara Wasson and Rune Baggetun for letting me take part in the pre-project 'Collogatories: Collaborative Learning Communities on the Web', if it wasn't for Rune's interest in the blogging phenomenon I would not have been aware of this form of communication in the first place.

A special thanks to Konrad Morgan, which took the role of being my supervisor in the middle of my study, in one of my most frustrating times. Your advice, guidance and humour has been valuable.

A warm thanks to Trine Elise Holst Roness for support and help throughout this process, our discussions have been precious.

I also need to thank my family for putting up with my mood swings, and giving me encouragement along the way, and all my fellow students that has been contributing scientifically, and socially, during my research.

- Kristin ☺

Table of Content

Table of Figures

1.   Introduction

In the past few years a new form of communication has sprung up on the Internet. Collaborative communities are growing out of a very simple use of online spaces, so-called weblogs (or blogs). Weblogs is similar to the more familiar homepage, but the difference between the two is that a homepage is mostly used as an information page, while a weblog is used to communicate with other weblogs. The user of weblogs, called bloggers, talk about each other on their tours around the World Wide Web, and from this it continues to emerge new relations between bloggers that share the same interests – music, politics, motion pictures etc. Some of the networks that have come into being are enormous. One may compare this communication to old-fashioned story telling, where a story is travelling from mouth to mouth gaining an increased audience. Writings published in the weblogs are mainly short informal posts with an informative perspective, and the hypertext links is meant to give the reader the chance to broaden the information if it is desired. This makes the weblogs good filters because they function as a sort of separator to find subjects of significance to the searcher on the Internet. Weblog editors become quite known by their regular readers, and with the use of blogrolling lists, a section on the site that lists weblogs that are read on a regular basis, readers can see whose viewpoints are more widely regarded.

The practical application of weblogs is exploding in all spheres of the Internet, and the use in relation to education are beginning to be described, but there is little research on blogs and blogging in relation to learning issues. Interesting questions that came to mind in relation to the use of weblogs in education were: how would students adapt to the use of weblogs? Would they adjust to the informal writing when used in an educational setting? Would they become as eager users as the genuine bloggers at the Web? and would there be an equal explosion of social networking as observed at the Web?

Collogatories is the conception of media rich learning environments "that begin with the *intention* of collaborative blogging around a particular knowledge domain." (Wasson & Baggetun, 2003 p.7) 'Collogatories: Collaborative Learning Communities on the Web', is an InterMedia pre-project funded by ITU. This study is part of this pre-project, and is focusing on the use of weblogs in a Pedagogical Information Science course, at the University of Bergen, in the spring semester of 2003. The weblogs were introduced in the course in order to give the students some sort of hands of practice with the use of technology, and were also to be used as tools to log personal experiences throughout the course. The weblog environment that was utilized was voluntary and unstructured, and the reason for this choice was to give the students

the possibility to freely explore the use of weblogs in their own pace and without restrictions. This study is focusing on how the students adapted to the use of the weblog system during the course, which in turn will hopefully give some indications of the potential for using weblogs in education.

The chosen framework for this study is Computer Supported Collaborative Learning (CSCL), discussed in chapter 2, because the focus is related to the process of learning, how the students share their knowledge, and how meaning making occurs. In order to answer questions relevant to the students use of weblogs their behaviour within this virtual environment has been observed, and some of the students has been interviewed in order to elaborate on visible patterns that were indicated through the process. The additional presentation is organised in the following:

- Chapter 2 introduce the theoretical framework that will be the foundation for the analysis.

- Chapter 3 introduce the scenario for this study
  the pre-project 'Collogatories: Collaborative Learning Communities on the Web',
  which this thesis is a part of.

- Chapter 4 introduces related studies, gives examples of weblogs that are established, in one way or another, in connection to education, and give a more profound description of a course at the University of Bergen that has been using weblogs as a main ingredient.

- Chapter 5 describes the choice of research design with regard to this study.

- Chapter 6 introduces the organising of the data material, and the analysis of the interviewed participants and their weblogs.

- Chapter 7 discuss the observations and findings from the organised and analysed data, and

- Chapter 8 conclude and summarise the study of student's use of weblogs

2. Literature Review

2.1 Introduction

This chapter will introduce the theoretical framework that will be the foundation for analysing a knowledge management system used in education. This framework will assist the evaluation providing it with explicit perspectives.

There are several factors involved when considering the alterations within the educational system. Various points of view when it comes to the most efficient way to learn, or the best way to teach and instruct in a classroom, are still frequent subjects of discussion within different educational environments. Our needs have changed over time, and with this what is considered to be 'significant' and 'correct' learning. The tools needed to function in our everyday has changed, many of them being built into technology which has provided the need for different knowledge compared to the past, and a dependence to the technology itself has come into being (Säljö, 2001). This development has given the computer an important role within the educational system, providing for new possibilities and different challenges regarding learning, teaching and instruction. The use of technology within the educational establishment has changed along with the perspectives regarding how we learn, from a perspective mainly based on the capacities within each individual as a learning being, to a collaborative perspective considering the community as learning unity.

The use of technology was early on primarily talked about in relation to economic life, trade, and industry, not in relation to education. In the 1970s minicomputers started to support groups and organisations in new and more sophisticated ways, which in turn resulted in a wider focus including the user perspective (Grudin, 1994). From this grew the need to learn more about how people worked in groups and in organisations, and how technology affected these processes (Grudin, 1994). Computer Supported Cooperative Work (CSCW) became a contribution from technologists trying to learn from economy, social psychology, anthropology, organizational theory, and others in trying to understand the processes of group activity (Grudin, 1994). Computer Supported Collaborative Learning (CSCL) is a descendant from the field of CSCW and it deals with subjects with regard to "how collaborative learning supported by technology can enhance peer interaction and work in groups, and how collaboration and technology facilitate sharing and distributing of knowledge and expertise among community members" (Lipponen, 2002 p.1).

Research regarding CSCL has increased over the years, and the field has evolved out of studies on cooperative learning that has pointed out the advantages, concerning individual learning, of working together in groups (e.g. Johnson & Johnson, 1989), but as opposed to CSCW which has its origin within the organisational environment, CSCL is mainly talked about in relation to education (fig.1).
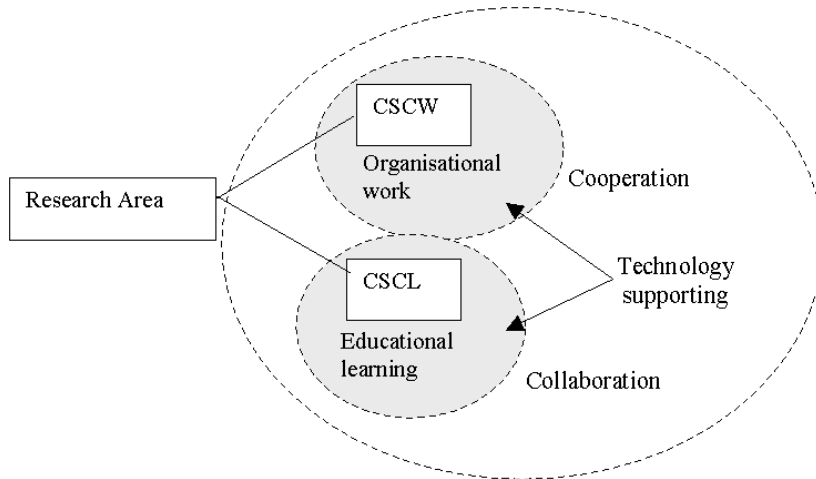
Figure 1: Role of technology within CSCW and CSCL

Concepts that become important in relation to the use of technology within the educational establishment are; what does the meaning of learning involve? How do we learn? And how does technology influence on these elements?

CSCL, which is by Koschmann (1996) described as an emerging paradigm within the field of instructional technology, function as an overall framework relevant for this study. This chapter begin with a description of CSCL and its predecessor CSCW, before moving on to some of the issues that concerns the notion of learning. CSCL is a field that according to Koschmann (1996) has undergone several paradigmatic shifts in its relatively short history, shifts that are important to explore in gaining insight regarding the context which work within CSCL arises. These are explored along with the perspectives on learning that has been most influential through time. CSCL is built upon a focus that brings social issues to the forefront as a central phenomenon, this chapter hence ends with a description of the sociocultural theory, a perspective relevant to learning and technology that will be used as a theoretical foundation for the analysis of this study.

2.2 CSCL – Computer Supported Collaborative Learning

Koschmann (1996) uses the acronym CSCL (Computer Supported Collaborative Learning) in relation to what he claims to be a new research area within instructional technology. Theories within this field emphasise how technology can reinforce group work and peer-interaction, and how collaboration and technology can simplify the process of knowledge sharing among group members (Lipponen, 2002). Koschmann (1996) points out that it is hard to talk about what CSCL is, and what it is not, that in the future not will be a subject of contradiction, but he describe it as a paradigm which "focus on the use of technology as a mediational tool within collaborative methods of instruction" (p.2). The interpretations regarding this initial word has been many, but it appears that researchers use it as suggested by Koschmann (1994) where he says that "The best policy might be to simply use the acronym, allowing individual interpretation of what the letters might be" (quoted in Lipponen, 2002 p.2).

CSCL is a descendant from CSCW (Computer Supported Cooperative Work), and it is inspired by this research which has discovered issues regarding "the collaborative nature of work supported by groupware" (Lipponen, 2002 p.1). CSCW is by Ellis (1991) defined as "Computer-based systems that supports groups of people engaged in a common task (or goal) and that provide an interface to a shared environment" (p.40).

The acronym of CSCW has been discussed to the same extent as CSCL. Bannon and Schmidt (1991) suggest "CSCW should be conceived as an endeavour to understand the nature and characteristics of cooperative work with the objective of designing adequate computer-based technologies. […] The focus is to understand, so as to better support, cooperative work" (p.3). The same can be said concerning work within CSCL; the field is taking an aim at understanding the nature of learning and collaboration so computers within the educational system can effectively support it.

CSCW is mainly based on 'groupware' which point to "information technology that provides the higher levels of coordination and cooperation needed to support individuals working together in organisations" (Lehtinen, Hakkarainen, Lipponen, Rahikainen, & Muukkonen, 1999 p.5). Most of the groupware applications (e.g. Teamware ®, TeamFocus ®) back up discussion databases, on the one hand, and development platforms where structured databases and workflow applications can be built, on the other.

While groupware refers to real computer-based systems, the notion CSCW means the study of tools and techniques of groupware as well as their psychological, social and organizational effects (Bannon & Schmidt, 1991). Important issues are group awareness, multi-user interfaces, concurrency control, communication and coordination within the group, shared information space and the support of a heterogeneous, open environment which integrates existing single-user applications (Applied Informatics and Distributed Systems Group, 1997; Bannon & Schmidt, 1991; Lehtinen et al., 1999). CSCW systems, as well as CSCL systems, are often categorized according to the time/location matrix using the distinction between same time (synchronous) and different times (asynchronous), and between same place (face-to-face) and different places (Applied Informatics and Distributed Systems Group, 1997; Lehtinen et al., 1999).

CSCL is mainly talked about in educational settings and the field is built upon research traditions of anthropology, sociology, linguistics, and communication science, which are focusing on language, culture, and aspects with a social focus that brings social issues to the forefront as a central phenomena (Koschmann, 1996). Stahl (2002b) argues that despite the fact that research within this field has had a healthy growth curve, "this research community is still searching for its foundations; to date, there is little consensus on theory, pedagogy, technology or methodology – even less in the broader world of learning stakeholders" (p.1). The reason for this difference of opinion can partially be a result of the newness represented by CSCL ideas within the educational community, and it also gives a pointer to the immaturity of the practical principles within this field – to early to be widely applied in educational reforms (Lehtinen et al., 1999).

Using technology to support instruction for educational purposes has been done in a number of ways; film, radio, and television has been experienced with various degrees of success, but it was not until the arrival of the computer that instructional technology became a field of interest. Koschmann (1996) argues that seen from a perspective based on Kuhn's paradigm theory, instructional technology has undergone several paradigmatic shifts in its relatively short history. He further ventures to allege that CSCL is an emerging paradigm within educational technology. CSCL is based on assumptions regarding the nature of learning and the field incorporates a new set of research practices, but before going into the historical aspects of the paradigmatic shifts within instructional technology, there will be given a description regarding some of the issues that concerns the notion of learning.

2.3   The Notion of Learning

There is no simple explanation considering how people learn, how the intellectual and manual proficiency develop. These processes are far too complex to be solved by automatizing technical solutions in the form of a single instructional methodology or technology. How people learn can not be reduced to one question concerning method or technique, not even the most powerful information technology can solve the issues surrounding learning, it just alter its conditions (Säljö, 2001). It is complicated, and probably impossible, to give an unambiguous definition of what learning is about. Opinions and theories within psychology and pedagogy differ in what should be emphasized regarding mediation of knowledge and productive instruction (Säljö, 2001). In what follows, there will not be given a single explanation regarding the notion of learning, rather contemplations of some of the perspectives that surround the concept.

2.3.1 Learning, Collaboration and Knowledge Building

Dillenbourg (1999a) argues that in the research literature on collaborative learning there is a high threshold when it comes to what is accepted as notions of 'learning'. Explanations of the concept have usually been associated with the individual cognitive processes where the individual solely increase their knowledge and understanding. Stahl et al. (2003) argues that theories on the subject have had a tradition in focusing on the individual student, where measurements has been done by testing changes in behaviour after a given educational interference. Understanding learning in this context gives an explanation from a viewpoint where pedagogical communication consist of instructing students with fixed knowledge (Stahl et al., 2003).

Generally when there is talk about collaborative situations, the common denominator is often the word 'collaborative' instead of the word 'learning'. The variation of meaning when discussing the word 'learning' is often reflecting two separate conditions of 'collaborative learning'. "Is it a pedagogical method or a psychological process?" (Dillenbourg, 1999a p.6).

Dillenbourg (1999a) allege that the pedagogical meaning can be said to be prescriptive; a group is made up of two or more people with the intention that this will provide for efficient learning. The psychological meaning is descriptive; through observation of two or more people in a learning situation the collaboration is seen as the mechanism that caused the learning.

This confusion, according to Dillenbourg (1999a), when it comes to descriptive and prescriptive explanations when discussing collaborative learning, can lead to overstatements when it comes to how effective collaborative learning in reality is. "Collaborative learning is not one single mechanism: if one talks about 'learning from collaboration', one should also talk about 'learning from being alone'" (p.6).

Collaborative learning is not a mechanism, nor is it a method. It is not because individual cognitive learning systems are individual that they learn, but because of activities performed by the individual (e.g. reading, construction, etc.) triggers some learning mechanism (e.g. induction, deduction, etc.). This is also the case when considering peers, the learning does not take place because two individuals are working together as a group, but because the activities that they perform together triggers specific learning mechanisms (Dillenbourg, 1999a). In addition to the individual cognition, interaction among participants in a group generates extra activities (explanations, disagreement, regulations, etc) that trigger extra cognitive mechanisms (knowledge elicitation, internalisation, etc). Dillenbourg (1999a) argues that these activities and mechanism is what collaborative learning is all about, and they may occur more frequently in collaborative learning than in individual cognition, but, there is no guarantee that these mechanisms occur in any collaborative interactions, and they do not only occur during collaboration. Dillenbourg (1999a) summarise that the challenge is to design situations that increase the likelihood of collaborative learning taking place. "The words 'collaborative learning' describe a situation in which particular forms of interaction among people are expected to occur, which would trigger learning mechanisms, but there is no guarantee that the expected interactions will actually occur" (p.7).

Stahl (2002a) emphasise that because the focus on collaboration expands the notion of learning with the inclusion of interactions in groups this brings the collaborative aspect in to consideration, "the term 'knowledge building' is more concrete and descriptive than 'learning'" (p.62). This, he says, is because "the notion of 'collaborative knowledge building' seems more tangible" (p.63).

One of the arguments for this assertion is that because collaboration takes place in observable situations, like in discourse, collaborative knowledge building can be observed and evaluated, it produces objects or artefacts that can be traced and used for evaluation of the knowledge building that is taking place (Stahl, 2002a).

The term 'knowledge building' can be ascribed to Scardamalia and Bereiter (1996) which has promoted restruction of the classroom "into knowledge building communities and who have spearheaded the development and testing of computer support for such communities" (Stahl, 2002a p.63). Scardamalia and Bereiter (1996) discuss how educators have failed in intercepting the social structures that are significant for progressive knowledge building by focusing on the individual abilities. Knowledge building communities is seen in the context of research-oriented activities, and the restructuring of education with the help of technology must be done by distance from didactic approaches, the focus should be on problems instead of categories of knowledge. The challenge is to employ explanations, to encourage the production of theories by means of usage. "Engagement is at the level of how things work, underlying causes and principles, and interrelatedness of ideas explored over lengthy periods of time, and returned in new contexts" (Scardamalia & Bereiter, 1996 p.258).

Stahl (2002a) argue that "not all important learning is collaborative knowledge building" (p.63). The latter is defined by Bereiter (1996) as development of knowledge objects in terms of scientific notions and theories, without the involvement of memorizing facts. The emphasis is on the "social discourse about ideas – the core of knowledge building" (Stahl, 2002a p.64). The knowledge building concept stress the importance of developing a knowledge object shared by a group or a learning community. The focus, Stahl (2002a) argues, is on "the growth of communal understanding as reflected in increasingly elaborate artefacts" (p.64).

One approach of systematic striving for knowledge building, is presented by problem-based learning (PBL) (Koschmann, Kelson, Feltovich, & Barrows, 1996). The approach makes an effort in covering the broadness of a domain, in addition to deepening understanding through explorative inquiry, provided by cases designed as problems to be pursued continually (Stahl, 2002a). The approach makes the students investigators and the teacher a facilitator available to support the students in the learning process.

The history encompassing the learning conception has gone from attaching importance to the single individual as a learner, how individuals learn in groups, to how they learn together as a group. Most recent research on the use of information and communication technology in education emphasize the technologies abilities to facilitate social interaction (Lehtinen et al., 1999). The history of instructional technology follow the same direction regarding the importance on the individual or the community, as will be described in the following section.

2.4   The History of Instructional Technology

Koschmann's (1996) analytical focal point is that several past paradigms can be identified for instructional use of technology. He gives an historical analysis of past paradigms within this field because he sees this exploration as essential for the development of an understanding of the context which work within CSCL arises (Koschmann, 1996). This historical analysis (fig.2) will be explored in the following section.

Paradigm	Background	Learning Theory	Focus
CAI	Introduction of Coursewriter 1 in (1960)	Behaviourism	Instructional Efficacy
ITS	AI coming into the educational arena (1970)	Cognitivism	Instructional Competence
Logo-as-Latin	Originates from Piaget	Constructivism	Instructional Transfer
CSCL	NATO Workshop (1989)	Socially oriented	Instruction as enacted practice

Figure 2: History of instructional technology (Koschmann, 1996)

2.4.1 CAI Paradigm

Computer-Assisted Instruction (CAI) was early on used as an adequate term for all uses of computers in education along with related terms as 'Computer-Based Instruction' and 'Computer-Aided Learning'. Later on CAI became a representative background, which other more specific approaches where contrasted. Koschmann (1996) uses the term more precise to refer to a distinct paradigm in design and evaluation of instructional technologies, IBM's release of Coursewriter 1 in 1960, the first CAI authoring tool which he says "serve as the inaugural event for the emergence of this paradigm" (p.5).

Many of the CAI developers has a background from teaching, and tools developed within this field is hence straightforward and practical instructional tools designed to meet the needs that arise in the classroom (Koschmann, 1996). Seeing that the ties between developers and educators where so close, CAI applications has a tendency to reflect the vision of the educational community at that time. This view attach importance to learning as "the passive acquisition or absorption of an established (and often rigidly defined) body of information" (Koschmann, 1996 p.5).

Instruction within this view is regarded as transfer of knowledge from teacher to student (fig.3). Cuban (1993) argues that the teacher's role is to "acquire formal knowledge, find efficient ways of sharing it, and determine whether pupils have learned what was taught" (quoted in Koschmann, 1996 p.5).
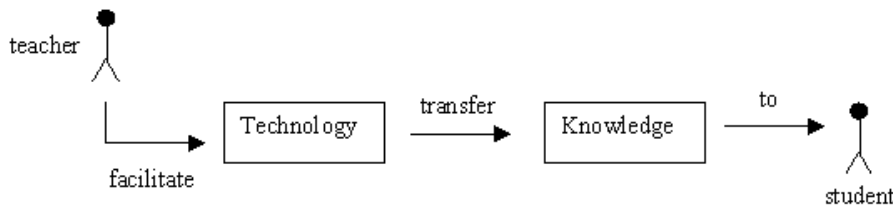
Figure 3: Transfer of knowledge from teacher to student through the use of technology

CAI research deals with questions concerning the instructional benefits of an introduced technology (Koschmann, 1996). Studies within this paradigm have in that respect focused on issues related to instructional efficacy. The CAI paradigm has undergone refining processes over the years, and a more system orientation involving testing in more authentic environments has later been adapted, but early work within CAI where controlled laboratory studies in the style of the behaviourism (Koschmann, 1996).

In conformity with Koschmann's paradigm shift, de Jong et al. (2001) is using Bruners (1996) category when discussing the changes within the educational system, referring to the Transfer of Knowledge paradigm (TOK), which can be placed in the same period as Koschmann's CAI paradigm. de Jong et al. (2001) argues that the reason for the demise of TOK is "the lack of evidence for transfer of formal school and scientific knowledge to the use and creation of knowledge in real-life working situations. So education sees itself confronted with changing goals" (p.112). Maturana and Varela (1992) says that the argument is that people need to be able to use higher-order learning skills in order to translate their knowledge into "effective action in the domain of existence" (quoted in de Jong et al., 2001 p.112).

Koschmann (1996) point out that although CAI is considered as the elder paradigm relevant to work in IT, it is not abandoned today. Applications within this field range from drill-and-practice programs to network-based World Wide Web systems, still in use as instructional software in classrooms, and still evaluated within research areas by its instructional effects (Koschmann, 1996).

But, before moving on into the next period of instructional technology, the characteristic of behaviourism will be elaborated to give a clear picture of the perspective behind this first paradigm.

Behaviourism

Behaviourism is the psychological perspective on learning that corresponds to the empirical tradition, one of two views on learning, which some think of as one of the most influential in time. Behaviourism focus on the external behaviour which is concrete and real, and this definition is founded on alterations in the observable, external behaviour (Helstrup, 1997; Säljö, 2001). To assert that this perspective is empirical, involves learning as the physical experiences an individual make. Phenomenon associated to processes related to thinking and reflection is seen as non- existing or scientific untouchable. Demanding observable and objective facts, this tradition can be related to positivism and logical empirics (Säljö, 2001).

Fifty years of research within the field of behaviourism, from the first world war to the end of the 1960s, was in large dealing with questions in the form of 'what is learned?' and 'is reinforcement essential for learning?' (Helstrup, 1997). The behaviouristic perspective has it origin based on some simple observations that the slobbering of dogs (a reflection) can be triggered by other causes than what is natural (food in their mouth) (Säljö, 2001). This observation was made by the Russian physiologist and psychologist Ivan Pavlov (1849-1936), who had a strict materialistic scientific interpretation of the world, and therefore saw this observance as sensational. In his later work, Pavlov focused on these so-called *conditional reflexes*, and how to create and control them (Säljö, 2001). A conditional reflex – as opposed to an unconditional reflex – is seen as an unnatural connector between *stimulus* and *response*, something the animal (or the human being) appropriate through specific experiences that does not exist in a natural state, an acquired reaction. Behaviourism of this origin understand behaviour as compounded of chains of complicated condition-processes, where the human reaction is the result of continuous advanced conditions (Säljö, 2001).

The next person who can be seen as a revolutionary within behaviourism is the American psychologist B. F. Skinner (1904-1990) (Säljö, 2001). Skinner expanded the perspective, and approached the objects of study to everyday behaviour by including conditions as something attainable in many categories of behaviour, not just those regarding reflexes (Helstrup, 1997). His observation where that people has a tendency to repeat behaviour where they experience forms of positive results (reward or reinforcement), or where they avoid something unpleasant, which in turn can be seen as an reward as well. Behaviour that do not obtain this kind of

positive results tends to be reduced, and may disappear entirely. The principle of *reinforcement* function through rewardment of behaviour constituted by a living being, and this rewardment causes increasement in the behaviours frequency. This form of conditions is called *operant conditions* (Säljö, 2001).

Skinners perspective became a model within the educational community in considerable ways (Säljö, 2001). Knowledge regarding conditions where used to construct means of instructions and so-called 'learning-machines' which where built on systematic and immediate reinforcement of the students responses. These teaching aids exemplify some of the aspect of how the behaviouristic perspective regarded the nature of knowledge; knowledge exists outside the individual, and it is a finished product that comes in terminated wrapped up units, then it becomes enlarged with the student who builds it up, bit by bit. The students' responsibility is to adapt the separate pieces of knowledge to its repertoire of behaviour (Helstrup, 1997). 'Practice makes perfect' can be said to be a behaviouristic recipe. Knowledge and understanding is viewed more as a result than a cause when concerning learning (Helstrup, 1997).

Some of the criticism against the behaviouristic perspective deals with the fact that it had a starting point founded on observations relevant to animals. Focusing on the limitations that come into being when these observations is applied to the human race, especially when it comes to our use of language and communication, which some say, cannot be brushed aside with explanations regarding reinforcements (Säljö, 2001).

In a retrospective one can say that there exist situations where this form of learning will be useful, where rewardment will provide for learning (Helstrup, 1997). Some situations call for behaviour which is memorized to occur, and motivational support can be important to retain perfection, e.g. in case of an emergency situation where knowledge depend on control.

2.4.2 ITS Paradigm

The next period within instructional technology, The Intelligent Tutoring Systems paradigm (ITS), was a result of the Artificial Intelligence domain (AI) taking a leap into the educational arena in the 1970's (Koschmann, 1996). Research in the field of AI is based on the thought that "cognition is, in some sense, a computational process that can be studied through the construction of 'intelligent' systems that serve as functional models of the otherwise inaccessible processes of the human mind" (Koschmann, 1996 p.7).

This view argues that if machines can be programmed to employ intelligent behaviour, than a technological system could take the role of a skilled teacher (fig.4).
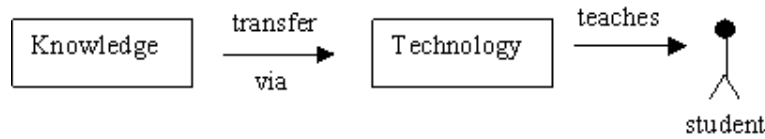
Figure 4: Technology system having the role of a skilled tutor.

The paradigms fundament is that education could be improved by supplying students with personal tutors provided by technology. Within work of AI, information processing theory, for one, has served as infrastructure. Koschmann (1996) argues that in this view, representation becomes a central issue for understanding problem solving and cognition. "Learning, in this light, becomes the process by which the problem solver acquire a proper presentation of a problem space. Instruction, then, consists of activities designed to facilitate the acquisition of such a representation by the learner" (p.7).

The role technology plays in this view is not very different from the CAI paradigm, the distinction are more a question of degree than kind, and they have more in common than usually approved of (Koschmann, 1996). Both envisage an epistemological position that is realistic and absolute. "Both reflect prevailing notions of knowledge as given and of teachers as the final authority" (Koschmann, 1996 p.8). But where instructional efficacy is the condition within CAI, the crucial issue in ITS is instructional competence, focusing on the faithfulness of the systems performance regarding the emulation of the behaviour of a skilled tutor (Koschmann, 1996). Differences also deal with the CAI paradigm reflecting methods within the educational community, and ITS' employment of approaches emerging from the field of AI, and as opposed to the behaviouristic influence within CAI, ITS fall under perspectives within the cognitive tradition.

Cognitivism

The change-over in psychology from behaviourism to cognitivism came with the debate regarding to what extent temporary memory represent a distinctive form of memory, or could be explained with the same principles as for long term memory (Helstrup, 1997). The focus within this perspective is on explanations concerning what is to be understood as the human cognitive resources and its mental processes. In this view, the separation between body and intellect is complete, and the assumption is the existence of an established mechanism which

constitute the centre of thought, and that thinking and its processes can be studied separately (Säljö, 2001).

Concepts used within this tradition was under the influence of computerised technology and its rapid development at that time, the brain was denoted as 'a processor', people where 'obtaining' and 'managing' information, and there where talk of 'storing' and 'seeking' information from 'memory' etc (Helstrup, 1997). Efficient learning within this view consists in managing limitations within the cognitive information processing system (Säljö, 2001). The learner needs to gain control over problem areas in the system, in the means of mastering the cognition so it best can be utilized for learning, while the teacher must organise the educational material so that the student will acquire as much as possible by the use of the established procedures (Helstrup, 1997).

The cognitive tradition consists of various theoretical perspectives, and it resulted in extensive research within different fields. Even though cognitivism gained status within the academic research community, its influence in other areas is doubtful, its theoretical position describing a static mechanism, never really fully developed a convincing conception relevant to learning and development within other areas (Säljö, 2001).

Criticism raised against the cognitive tradition refers, among other factors, to the inference by analogy founded on processes within a computer system. This view that deals with information processing, is said not to consider the cortical basis that may render possible complex human cognition, including learning (Helstrup, 1997).

2.4.3 Logo-as-Latin Paradigm

The Logo-as-Latin paradigm descend from an epistemological perspective that is of the opinion that knowledge is acquired through "a process of subjective construction on the part of the experiencing organism rather than a discovering of ontological reality" (Koschmann, 1996 p.9). This paradigm, Koschmann (1996) argues, has a constructivist view, and originates from the developmental psychologist Piaget[1], "who introduced a theory of learning whereby new information interacts with prior knowledge through a process of assimilation and accommodation" (p.9).

---

[1] See e.g., (Piaget & Inhelder, 1969)

This view on learning has inspired the development of a great many instructional methods; open-classroom learning, experimental learning, inquiry learning, all believing in learning as occurring under conditions of personal inquiry and discovery (Koschmann, 1996). This change in focus, from the mind as a processor to the construction of knowledge (fig.5), also fit into what Bruner (1996) has called the Learner as Thinker paradigm (LAT). de Jong et al. (2001) say that this is a shift from the TOK paradigm, where the "re-construction of knowledge is not a goal in itself but an attempt to realize less rigid knowledge acquisition and to maximize the application of learned knowledge in real-life situations" (p.112).
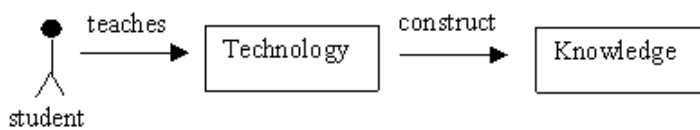
Figure 5: Student constructing knowledge with the use of technology

Papert (1980) argued that programming with computers could be essential for constructivist learning. He thought computer programs as artefacts where interesting for learning purposes because they are executable. When constructing executable artefacts, the learner teaches the computer, and therefore is part of providing a new role for technology and learning (Koschmann, 1996). The role is shifted when the student by instructing the computer, assume the part of the teacher. This view, Koschmann (1996) argue, assume that by engaging in programming activities involving building and designing, "the learner acquires cognitive benefits that extend beyond simply learning to code in a particular language" (p.9). Considerable research has emphasized on what these benefits may be, and a lot of studies involves programming in Logo (see Papert, 1980), "a powerful programming language designed by Wally Feurzeig in the mid-1960s for use by young children"[2] (Koschmann, 1996 p.9).

The exploration of cognitive benefits relevant to programming can be considered as part of a broader movement within educational psychology. As a consequence, researchers has made use of standard methods from this field in evaluating the cognitive benefits of programming (Koschmann, 1996). Research within the Logo-as-Latin paradigm focus on the issue of instructional transfer, as opposed to CAI, which focus on instructional efficacy, and it is

---

[2] Koschmann emphasise that "not all Logo-as-Latin research is based on Logo; nor does all research that involves programming in Logo necessarily represent Logo-as-Latin research" (Koschmann, 1996 p.10).

common to make use of control groups. Constructivist research has as its main concern the issue of cognitive self-organization, and this view sees the mind as a phenomenon that exist within the head of a person (Koschmann, 1996).

Constructivism

Constructivism is one of the most influencing perspective within the cognitive tradition, and this view attaches importance to the construction of knowledge, and does not see the individual as a passive absorber of information (Säljö, 2001). This perspective can be retrieved from several traditions, but the one that stands out is the Swiss researcher Jean Piaget, and his influence on the educational tradition (Koschmann, 1996). Piaget referred to himself as a genetic epistemologist[3], because of his exploration of theoretical questions dealing with the origin and development of knowledge. Piaget studied children (also his own), and children's development of thinking skills, to grasp how knowledge comes into being. His work is marked by ideas concerning which activities children should engage in to be able to develop themselves (Säljö, 2001).

The framework concerning the studies of children's development was not a reaction to the behaviouristic representations (Helstrup, 1997). Piaget, which was a biologist by education, developed an interest for children's thought processes when he was working as an assistant, at an institute working on intelligence testing, in Paris. Piaget did not believe in these methods, which he considered to be questionable and static, he found it more interesting why the children responded to the questions as they did. Piaget wanted to reach their reasoning and their world of ideas (Säljö, 2001).

Piaget and his interpretative descendants stood out from the American variant of the cognitive perspective. Although there are many parallel concepts between the two, there is one defining feature that needs to be emphasized. Humans are not passive, recording beings that receive sense impressions from their surroundings. Humans are creative and active, and make meaningful totality out of their observations (Säljö, 2001). This constructivist element is an important part of cognitivism and its different variations, and it is a strong contributor in an educational context (Helstrup, 1997). When a child studies its environments, physically and conceptually, it is at the same time constructing a personal, and meaningful, vision of the world (Säljö, 2001). Curricula formulated from the 1960's to the 1990's are in many countries influenced by this, and the metaphoric usage deals with how children should be 'active', 'discover things on their own', and 'be directed by their own curiosity' (Helstrup, 1997; Säljö,

---

[3] Translated by writer from the Norwegian "genetisk epistemolog".

2001). Intervention by adults where seen as interfering elements against the children's spontaneous activity, because the child should explore the world. Piaget did not see himself as an educationalist, but in his later productions there has been found utterances that substantiate this view on learning and children's development (Säljö, 2001).

Piaget's perspective implied less emphasis relevant to differences in social and cultural backgrounds regarding results in education (Säljö, 2001). His rationalistic view of the world saw the human cognition as universal. Piaget's research was mainly concerning children from areas around Geneva and in similar European environments, and he deduced generally from these studies (Säljö, 2001). Criticism raised against the perspective in the 1970's was built on comparative cross-cultural studies.

Säljö (2001) argues that the ideas of Piaget, and the embracement of his thoughts, can not just be seen as the perspective with the best explanations regarding these kind of phenomena, it had more to do with a mutual consent between the spirit of times and Piaget's view, and that this accordance made people willing to see development and knowledge building through this perspective .

2.4.4 The Emerging Paradigm of CSCL

Koschmann (1996) see this as an emerging paradigm based on different assumptions around the nature of learning, (see section 2.2 for definition), and he attach importance to the lack of agreement among the paradigms described previously when it comes to theories of learning and pedagogy, "but all three approach learning and instruction as psychological matters" (p.10). Although Koschmann consider CSCL to be an emerging paradigm, there are others that do not agree with this classification. Bannon (1989) consider CSCL to be "[…] an 'umbrella term' which serves as useful function by bringing together under its umbrella, in meetings and workshops, a variety of researchers with different backgrounds and techniques, were they can discuss their work" (p.2). Bannon (1989) is describing CSCL as a research field were scientists with various backgrounds can discuss and develop multidisciplinary perspectives together. From this CSCL can be said not to be a uniform conceptual framework, but a collection of contributions from different research areas (Roness, 2003). Koschmann (1996) argues that psychological theories regarding learning and instruction, has made the foundation for CSCL as a paradigm.

CSCL is, as mentioned, built upon a focus that brings social issues to the forefront as a central phenomena, and it reflects a different view on learning and instruction than the former paradigms because of its influences by the socially oriented (in contrast to the psychological) sciences (Koschmann, 1996). The next section will go into the meaning and discussions behind the acronym of the field – Collaborative Learning and Computer Support.

Collaborative Learning – the Underlying Instructional Model

For a great many years, theories with regard to collaborative learning tended to have a focus on how individuals functioned together in a group. This reflected a position dominant both in cognitive psychology and in artificial intelligence in the 1970s and early 1980s, "where cognition was seen as a product of individual information processors, and where the context of social interaction was seen more as a background for individual activity than as a focus of research in itself" (Dillenbourg, Baker, Blaye, & O'Malley, 1996). More recently it is the group itself that has become the focal point of analysis, shifting to a more emergent and socially constructed view of the interaction (Dillenbourg et al., 1996).

The instructional model underlying work in CSCL is given the term 'collaborative learning'. Stahl (2002b) argues that collaborative learning, in this context, does not merely indicate the inclusion of participation in small groups, "it means that it is the groups themselves that learn" (p.1) see fig.6.
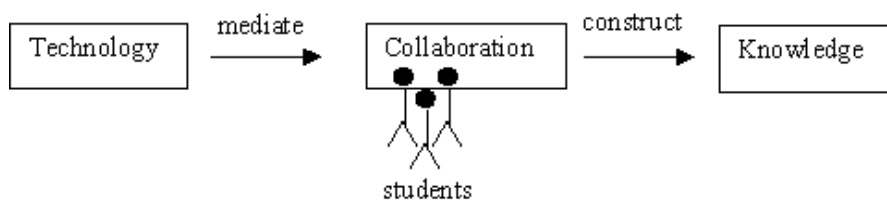
Figure 6: Technology as a mediating tool within collaborative methods of instruction

Knowledge becomes the product resulting from the collaborative process, "it arises through interaction of different perspectives, heats up in the cauldron of public discourse, is gradually refined through negotiation, and is codified and preserved in cultural or scientific artefacts" (Stahl, 2002b p.1) Knowledge building is not seen a static process.

Dillenbourg (1999a) regard CSCL as a very promising research field, not just because of its promissory as a research area, but exactly because of the inclusion of collaboration. One problem that arise from the concept is that although it can be easy to identify examples of

collaboration, it is not a simple job to give a precise definition of the concept (Koschmann, 1996). In the everyday conversation, collaboration is often referring to activities that a pair, or a group of individuals, are doing together, but in the world of research the term has many different meanings and explanations (Lipponen, 2002). There have been many attempts to define the collaboration concept, and the term is often used interchangeably with 'cooperation'. A problem arising from this turbid specification is that it is difficult to talk about the cognitive effects of 'collaborative' situations if any situation can be tagged with the word 'collaboration'. The wide usage of the two concepts can also result in difficulties regarding referencing author contributions concerning collaboration when various authors use the same word differently (Dillenbourg, 1999a).

Dillenbourg (1999a) argues that the adjective 'collaborative' concerns four aspects of learning:

- A situation can be characterised as more or less collaborative
  (i.e., collaboration is more likely to occur between people of similar status
  than between a boss and his/her employee)

- The interactions taking place between group members can be more or less
  collaborative (i.e., negotiation involve a higher degree of collaboration than
  instruction)

- Some learning mechanisms are more inherently collaborative (even if, at a
  very fine level of analysis, learning mechanisms must be similar to those triggered
  in individual learning)

- The effect of collaborative learning
  (different views regarding how to measure the effects of collaborative learning take art
  in the terminological confusion within this field)

Dillenbourg (1999a) examine various aspects of the concept and says that "the broadest (but unsatisfactory) definition of "collaborative learning" is that it is a situation in which two or more people learn or attempt to learn something together" (p.1).

The problem with this definition is that each element can be accounted for in different ways. In the past, Dillenbourg et al. (1996) has used a more restricted definition and said that

"'collaboration' is distinguished from 'cooperation' in that cooperative work "is accomplished by the division of labour among participants, as an activity where each person is responsible for a portion of the problem solving" whereas collaboration involves the "mutual engagement of participants in a coordinated effort to solve the problem together" (quoted in Lehtinen et al., 1999).

This definition highlights considerable aspects of the collaborative method like engagement in learning by doing, and learning together in the pursuit of knowledge (in contrast to competition), and the change-over for the instructor from authority and informatory to facilitator and mentor (Koschmann, 1996).

Further, Dillenbourg et al. (1996) says, that "cooperation and collaboration do not differ in terms of whether or not the task is *distributed*, but by the virtue of the way in which it is divided: in cooperation, the task is split (hierarchically) into independent subtasks; in collaboration, cognitive processes may be (heterarchically) divided into intertwined layers. In cooperation, coordination is only required when assembling partial results, while collaboration is "… a coordinated, synchronous activity that is the result of a continued attempt to construct and maintain a shared conception of a problem"" (p.2).

This is more in conformity with the argument Stahl (2002b) gives regarding the process of knowledge building, described in section 2.3.1. Lipponen (2002) on the other hand, argue that there should be an acceptance of this diversity of the concept, and that we should rather wait and see which term remains standing in the future . The difference between the collaboration and the cooperation concept is shown in figure 7.
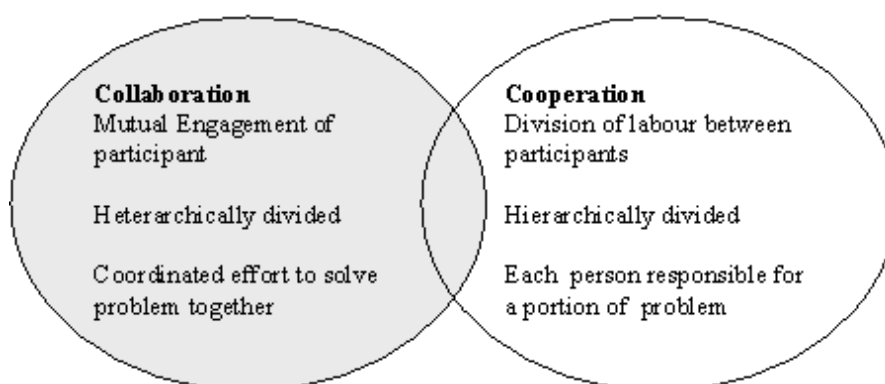
Figure 7: Difference between the collaboration and the cooperation concept

Computer Support – Collaboration and Technology

Computer support does not merely indicate the automation of delivery and testing of facts, "it means supporting forms of collaboration and knowledge building that could not otherwise take place without networked communication media and software tools for developing group understandings" (Stahl, 2002b p.1). Computers have the advantage of managing the complexity in many situations, Stahl (2002b) argue, like many-to-many communication, and overcoming the human limitations considering short-term memories. "CSCL should enable more powerful group cognition, which can synthesize complex interactions of ideas at different scales of collaboration, from small classroom project teams to global open source efforts" (p.1).

In conformity with the discussions dealing with the aspect of learning in collaboration, there are also various opinions when it comes to the first two acronyms within this field; what to emphasise in regard to computer support in collaborative situations.

Lipponen (2002) argue that it might be meaningful to distinguish between 'collaborative use of technology' and 'collaborative technology', because most technological applications can to some extent be viewed as collaborative when people are working together . Collaborative use of technology refers to software that is developed for the individual user, but can be employed for collaborative learning. In this situation two students can work together on a problem defined by the software, where the technology support negotiation of meaning, and mediate the students communication (Lipponen, 2002).

The most genuine collaborative technology, Lipponen (2002) argue, is applications produced for educational purposes. A common feature is that they support cognitive activities, providing the students with ways to structure discourses and create collaborative representations. An example of this is Computer Supported Intentional Learning Environment (CSILE[4]), which is developed for use in education and has a goal to support collaborative knowledge building (Lipponen, 2002).

Crook (1994) uses a somewhat different distinction when he talks about interaction around and through the computer. Interaction *around* the computer is meant to facilitate face-to-face communication between a pair of students or a small group. Technology will function as points

---

[4] There are many studies related to the use of CSILE see e.g., (Hakkarainen, Lipponen, & Järvelä, 2001; Scardamalia & Bereiter, 1991;, 1996).

of shared reference in these situations, because, he claims, that the traditional classroom is to limited equipped for successful collaboration.

Interacting *through* the computer is referring to the use of networks, local and wide area networks (LAN's and WAN's) and the use of Internet (Lehtinen et al., 1999).

Salomon (1992) employ an extended approach when distinguishing between the effects obtained *with* a tool and/or collaborating peers, and the effects *of* these. The effects *with* are the changes or results that occur in the course of using a tool or when collaborating with a peer (a group can accomplish more together than an individual alone). The effects *of* is referring to the lasting changes, or cognitive residue, that are resulting from the intellectual partnership (Wasson, 2000). This explanation is referring to both the collaborative use of technology and the collaborative situation. The various opinions around the use of computers related to collaboration are summarized in figure 8.

Use of Technology	Description
Collaborative use of technology	Software developed for individual user - employed for collaborative learning
Collaborative technology	Applications produced for educational purposes
Interaction around the computer	Facilitation of face-to-face communication between pairs or small groups
Interaction through the computer	Collaborating through the use of networks (LANs, WANs, and the Internet)
Effects obtained with a tool and/or collaborating peers	Changes that occur when using the tool or collaborating with a peer
Effects of a tool and/or collaborating peers	The lasting changes that result from an intellectual partnership

Figure 8: Various opinions regarding the use of computers in collaborative situations

Lipponen (2002) make a point of technology itself not being the solution to the challenges of learning and collaboration, because "technology can […] be used for other purposes than for supporting collaboration; it can easily be applied in transmitting and delivering knowledge" (p.6). This makes context an important basis for the use of collaborative technology in means of which setting it is implemented in. Stahl (2002a) argues that the main attraction within CSCL is that computer support can amplify the students capability of building concepts and insight together, and he emphasise that the goal of providing this support for collaborative learning is no easy task.

Analysis regarding the effectiveness of computers indicate that the majority of experiments that stress the use of technology has shown increased learning outcomes, but the problem with these studies is that they do not distinguish between different pedagogical perspectives on how computers have been implemented into the learning environment (Lehtinen et al., 1999). Hence, it is difficult to draw any conclusions about the effectiveness of CSCL on the basis of these studies. There are various aspects that need to be considered to maintain pedagogical goals, both at the individual and the community level, so that the technology can be integrated into pedagogical activities (Stahl et al., 2003). Experience has shown that the classroom culture has a tendency to bend educational tools into its own interest, hence the need for transformation of these cultures before new media can mediate learning in a way that coincide with research expectations (Lehtinen et al., 1999).

One important element, Stahl (2002c) argue, when taking context into consideration is not to shift focus entirely from the technology to the instructional context, and end up with research on learning that could function equally without computer support and without collaboration. Therefore the importance of considering the pedagogical necessities when implementing technology into collaborative situations within education. One of the most progressive perspectives referred to dealing with these aspects, as distinct from previous described learning theories, is the sociocultural perspective. Socioculture is often spoken of in relation to the field of CSCL with its emphasis on how individuals and groups appropriate and employ physical and cognitive resources (Koschmann, 1996). The appropriation of integrating pedagogical activities with the use of technology is important in relation to this thesis. The sociocultural perspective is used as a theoretical foundation for the analysis of this study and it is elaborated in the following section.

2.5 Sociocultural Perspective

As opposed to the cognitive tradition accounted for in previous sections, sosiocultural theory does not see changes through the analysing of the chemistry in the brain. The emphasis is that changes become visible when we look at the instruments, or tools, that are used to observe and adapt in the world (Säljö, 2001). We have created a culture with remedies that help us manage our surroundings in different ways than our ancestors as a natural development from what is seen as necessities as time goes by and the world changes. We have learned to organize human operations in spheres of activities, social systems built upon complicated forms of cooperation (Säljö, 2001). CSCL emphasize ICT as an mediating tool in relation to social learning processes, and Koschmann (1996) argue that the sociocultural tradition has influenced the development of the CSCL paradigm.

The mediation of technology when it comes to learning processes is within the framework of this study. Sociocultural research is often defined as the relation between mental processes and sociocultural situations, "[…] the goal of a socio-cultural approach is to explicate the relationships between human mental functioning, on the one hand, and the cultural, institutional, and historical situations in which this function occurs, on the other "(Wertsch, del Río, & Alvarez, 1995 p.3). The sociocultural history and central conceptions will be discussed in the following.

2.5.1 History

The sociocultural view is said to have its historical foundations from philosopher and educator John Dewey[5] (1859-1952), psychologist's George Herbert Mead[6] (1868-1931) and Lev S. Vygotsky (1886-1934), and literature- and lingual- theorist Mikhail Bakhtin[7] (1895-1975) (Dysthe, 1997b). Writings from Bakhtin and Vygotsky are translated from Russian and were available in the West from the 70s. Vygotsky's theories regarding the relationship between humans and culture and the origin of higher mental processes (Mind in Society, 1978), and the relationship between thoughts and language (Though and Language, 1987) is getting a lot of attention within several research areas relevant for education and instruction (Dysthe, 1997b).

Vygotsky was a teacher before he became a psychologist, and his research is reflecting the knowledge of practical pedagogic (Dysthe, 1997b). In modern times there is not only talk about a renewed interest in regard to previous psychological processes of social phenomena, but new research within other research fields than psychology and pedagogy. Some research traditions that has influenced what is also called a 'situated' perspective is ethnography (patterns in social interaction in various cultural settings), discourse analysis, socio linguistic, anthropology, and sociology, to mention some (Dysthe, 1997b).

Vygotsky claimed that higher mental processes within the individual have its origin in the social interaction. This is a departure from traditional interpretations within psychology were the emphasis has been on the individual as centre and the environment as more or less influential on the individual (Dysthe, 1997b). Vygotsky is seeing the social interaction as the basis for learning, not merely a framework around it. Bakhtin's theories are also focusing on

---

[5] Dewey is said to be one of the most influential thinkers on education in the twentieth century (Dysthe, 1997a), see e.g. (Dewey, 1933) for his exploration on thinking and its relationship to learning.
[6] Mead is a prominent figure in the history of American philosophy, one of the founders of Pragmatism.
[7] Bakhtin, and the Bakhtin Circle (a contemporary school of Russian thought) addressed social and cultural issues, among other things, examining the way in which language registered the conflicts between social groups (Dysthe, 1997a).

social interaction. His emphasis is on the dialog, and he saw the human existence as basically dialogical. Vygotsky never used the term sociocultural, but the term is related to the adaptation, and interpretation in relation to westerly researchers when it comes to this heritage from the Russian theorists (Wertsch et al., 1995).

In the following there will be given an introduction in Vygotsky's contemplations and aspects within the sociocultural theory, discussed in relation to Piaget (section 2.4.3), and Bakhtin's views on dialog.

2.5.2 Learning and the Process of Communication

Piaget emphasised that interaction in groups could be helpful in progressing the learning process, but that it is the individual itself that reformulate and embody the knowledge (see section 2.4.3). Vygotsky is turning this thinking around when he stress that it is the social expression of the mental processes that come previous to the individual (Dysthe, 1997a). Learning becomes a question regarding how we acquire resources, how we think and carry out practical tasks that are part of our cultural environment. Knowledge and skills are not, in that respect, based on our mind as a biological phenomenon; they rise from procedures in a society through interaction with others (Säljö, 2001). The fundamental idea within the sociocultural perspective is that the communication and interaction between people is of vital importance when it is the communication that creates and continue these sociocultural processes (Rommetveit, 1997; Säljö, 2001).

Piaget had a different view in regard to the perception of development and how a child relates to its environments (Säljö, 2001). Children were seen as basically egocentric, and the child's development evolve through an understanding of their environments. Egocentric, in this relation, indicate that the child interpret and relate to things that happen from its own centre of perception (Säljö, 2001). The child observe and manipulate its surroundings and is from this drawing conclusions concerning how the world function. It is the child's perceptions, the child's observations, and the child's conclusions, which lead to new learning. The environment then comes to be passive surroundings, only constituting objects for activity (Helstrup, 1997). The same emphasis is given by Bjørgen (1997), which argue that there is gaining's through collaboration, but in the last resort it is only the single individual that can learn, the social context is only important as a frame surrounding the individual.

The differences are evident within the sociocultural perspective where communication has a main position constituting the connection between the child and its environment. The child thinks with, and through, intellectual tools in the form of linguistic expressions that are learned in interaction with others. "Communication precede thinking, and to learn a language is to learn to think within a cultural framework and a social community"[8] (Säljö, 2001 p.68).

In that respect, the sociocultural perspective gives a channel for the distribution of learning and development. "Communication becomes the connection between the internal (thinking) and the external (interaction)" (Säljö, 2001 p.69). What Vygotsky is referring to as internal thinking (internalisation), is what the cognitivists is speaking of as information processing and cognition (Dysthe, 1997a).

Vygotsky indicate that the different levels of development that a child goes through, changes from a biological to a sociohistorical level; from mainly being decided by biological factors, the development evolve within the frame of sociocultural relations (Säljö, 2001). What then becomes important within a sociocultural view on learning, is the processes of communication, it is through these processes of discussions and conversations that the individual become part of a knowledge domain (Säljö, 2001). Human activities, when it comes to communicative and physical practice, are generally equal within this perspective (Helstrup, 1997; Rommetveit, 1997; Säljö, 2001).

Piaget believed that the use of language evolve from an egocentric adjustment to the world were the child is talking within its own conceptions, and mainly to itself, to a socialized usage where language is utilized to communicate with others (see section 2.4.3). The sociocultural emphasis on communicative practices involve the searching for what is called a "sociogenetic"[9] understanding of how knowledge come into being and how it is brought forward (Säljö, 2001). Within the piagetian tradition thought is also fundamental, but the cognitive structures develop independent of the language. Language has the role of providing us with the ability to perceive information (to assimilate), but only where the information agrees with our cognitive structures. (Säljö, 2001).

Dysthe (1997a) is extending the sociocultural concept of communication when including text in the dialogue . Dialog, she says, includes both the graphical and the spoken communication. This view is in conformity with Bakhtin, which did not separate between the written and spoken expression (Bakhtin, 1986). Bakhtin argued that we can only see ourselves in relation

---

[8] All quotations from Säljö (2001) are translated by the writer from Norwegian to English.
[9] Freely translated by writer from the Norwegian "sosiogenetisk".

to 'the other'; we can only reach consciousness through communication with others. According to this perspective, learning and living is about being in a continuous dialogue with other people, making the dialogue the condition for our existence (Dysthe, 1997a).

Within a sociocultural perspective, humans cannot elude learning. Learning is seen as a natural aspect of the human activity. This view on learning makes transfer of knowledge an unintentional process; the question is rather what we learn in different situations (Säljö, 2001). However, seeing education and transfer of knowledge as a main intention, as is the purpose of the educational community, then these activities will have an assumption relevant to how learning becomes. In this manner, the activities are founded on conditions concerning how to communicate in order to provide for the production of knowledge building (Säljö, 2001).

Dysthe (1997a) is writing about four different lingual processes that are important in learning situations; reading, listening, talking and writing. And is arguing that it is the first two that has been in focus within education. Dysthe (1997a) is emphasising that although learning cannot be done by someone else than yourself, it does not take place in an empty space, but within a social context that strongly affects the learning process. The external conditions and relations influence on how we learn, and what we learn.

Kolodner and Guzdial (1996) emphasise how important it is, when building educational software, to remember that this is what it is all about; facilitate learning. Even though different paradigms define and measure learning in different ways, it should be clear that "any education or educational technology paradigm, whether deriving from the social sciences, the cognitive sciences, or elsewhere, must include transfer in its definition and must have concrete things to say about transfer" (p.308) With transfer they are referring to the possibility of being able to use new knowledge in new situations.

One of the fundamental thoughts of development in the perspective of Piaget is the idea that the human intellect reaches a stage where it is fully developed. This idea also exists within other rationalist traditions (Säljö, 2001). This though is entirely different within the sociocultural view where the cultural artefacts – both intellectual and physical – always keep changing, and therefore also keep developing the human knowledge and the human capacities.

2.5.3 The Role of Artefacts and Mediation

The term instrument or tool has a specific and technical meaning within a sociocultural perspective, referring to the resources, both the linguistic (intellectual) and the physical, that we make use of when we deal with our surroundings in the world (Säljö, 2001). The cultural instruments are both practical and intellectual in nature. The intellectual tools give us opportunities to intervene and handle everyday life in practical relations, solve problems, and helping us deal with the physical reality. Through our ability to read we have the possibility to utilize instructions and keep up with information about occurrences in the world. The physical tools that surround us, telephones, microscopes, and computers, are constructed in a way that already has solved some of the intellectual challenges (Säljö, 2001). This leads to new ways of considering the necessity of what kind of knowledge we need to learn. Knowledge is built into the tools we utilize, making them a combination of physical material and intellectual insight.

Säljö (2001) argues that we need to understand thinking, our use of concepts, and the notion of learning, as part of the human activities, than we will see that the human behaviour is tightly connected to different types of instruments. Säljö (2001) continue, that cognitive resources must not be seen as merely qualities within the human intellect, because "throughout history, a great many human functions has been moved in to physical instruments – artefacts" (p.77). An artefact does not possess the ability to think, but through interaction with the human user, does the thinking not only take place in the users head. To understand the use of cognitive resources, how we learn and manage situations, one cannot disregard our interplay with artefacts; through artefacts we reach the ability to solve problems in ways we would not be able to without them (Säljö, 2001). This is one of the distinctive characteristics within the sociocultural development.

Another distinctive characteristic within this perspective is the concept of mediation. Physical, intellectual, and linguistic instruments mediate the human reality. The concept indicates that humans do not have an immediate and uninterpreted relation with their surroundings; we manage our everyday through artefacts that are integral parts of our social life. "We need to see and understand how thinking is practiced by people that act in social practices with the use of artefacts" (Säljö, 2001 p.83).

The mediating tools that are used in human practices can be both technical and psychological: "The most essential feature distinguishing the psychological tool from the technical tool, is that it directs the mind and behaviour whereas the technical tool, which is also inserted as an intermediate link between human activity and the external object, is directed toward producing

one or other set of changes in the object itself" (Vygotsky quoted in Guribye, 2000 p.44) The "tools serves as mediational means, i.e. they –metaphorically speaking – stand between the individual and the world" (Säljö (1996), quoted in Guribye, 2000 p.44). This structural relation between the subject and its environment is by Vygotsky described as a triangle (fig.9)
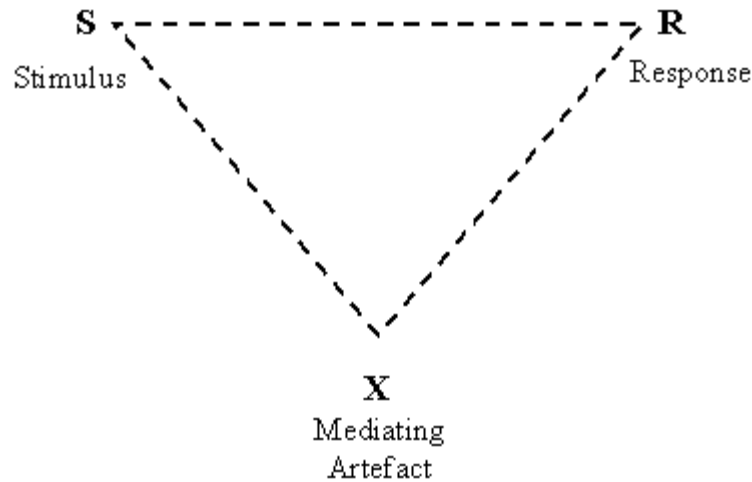
Figure 9: Vygotsky's mediating triangle

Vygotsky dispute the behaviouristic connection between the object (stimulus, S) and the subject (response, R). The individual will not respond directly towards the environment, rather be influenced by the mediating artefact (X). Vygotsky's mediating triangle is later further developed into a collective activity system (see Engstrøm, 1987). If we reduce learning and thinking to a single object, by removing the artefacts and the social practices where the usage take place, we lose sight of the phenomena and instead study individuals "that are deprived of their sociocultural resources" (Säljö, 2001 p.83).

Most likely does successful artefacts function in ways that conceal the underlying expertise, they can even be incomprehensible. One example is the personal computer; people know how to use it, but they do not always understand the underlying architecture. The ability to learn and to develop therefore becomes a question regarding the utilization of the cognitive resources that lives within the artefact, like information, practice, and procedures. But the most important tool of mediation is the resource within our language. "We *re*-present the world to ourselves and to others with the same instrument; communication has an outside turned against others and an inside turned against ourselves and our thinking" (Säljö, 2001 p.108).

2.5.4 Zone of Proximal Development

Zone of Proximal Development (ZOPED or ZPD) is a dynamic view on peoples learning and development. Vygotsky (1978) uses the definition regarding "[...] the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (p.86). What is emphasized in this definition is rather known; guidance from the environment can help us solve problems that we could not have done on our own (Baker, Hansen, Joiner, & Traum, 1999; Hansen, Dirckinck-Holmfeld, Lewis, & Rugelj, 1999; Säljö, 2001), but placing this simple definition into a larger social perspective results in conclusive consequences.

Säljö (2001) sees this reasoning as interesting because it indicate that the difference between controlling a physical or intellectual instrument and not controlling it, is rather diffuse. We have the ability to understand when operations are explained, but it takes time before we can carry out this operation where the needed competence is to be used; we can understand what is said and done, but we cannot manage all the different levels without support. In Vygotsky's description, is the difference between the participants knowledge emphasized as a condition to gain movement within the frame of development. "The most competent guides the less competent" (Säljö, 2001 p.125).

Fig.10 indicate that knowledge in an individual has a central 'core', which is 'owned' by the individual. The ZPD is surrounding this core, where the individual has some knowledge but not the full structure required, and hence is in need of help in performing tasks that depend upon this knowledge (Hansen et al., 1999).
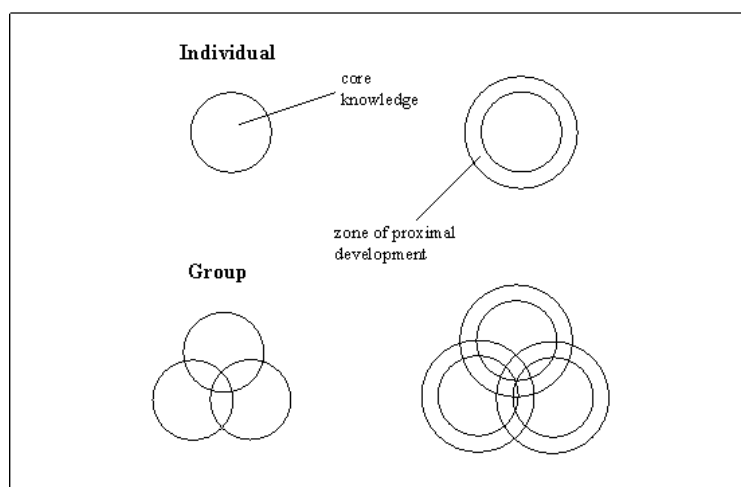
Figure 10: Core and ZPD knowledge for individual and group (Hansen et al., 1999 p.186)

A zone of proximal development can been seen as a guide into a cultures perceptibility. Since an individual always are being a part of different zones in a complex society, the individuals development will always be within the frames of these practices (Hansen et al., 1999). "This way, the sociocultural conditions constitute both the surroundings developing the individual, and at the same time the environment which provide it with experiences and activities that direct the development in an certain direction" (Säljö, 2001 p.125).

The communicating practices within the educational environment can be used as an example, this is where the child is given the possibility to develop itself, and it is often this environment that makes cultural artefacts accessible to the child. Dysthe (1997a) is arguing that even though the zpd is often talked about in relation to children, one can think of this interaction between a tutor and a student as a similar situation. In other types of groups, the learning lies more in the communication – the dialog. The symmetry between a group of students, when it comes to knowledge and understanding, will probably be more even than a student-teacher conversation, which can contribute to a higher likelihood of communication (Dysthe, 1997a).

Dysthe (1997a) is emphasising the importance of symmetry in that a conversation can take the form of a lecture in communicating what Bakhtin would call "the authoritative word" (p.124). The point is that it is hard to imagine a genuine dialogue in relation to a problem when one of the participants is aware of the right answer. In order to call an educational conversation (teacher-student) a dialogue, the lecturer needs to have an explorative and open attitude towards the educational subjects, and a genuine interest in the students contributions (Dysthe, 1997a).

Lipponen (2002) argues that ZPD can be regarded in relation to CSCL's emphasize on how technology can reinforce group work and peer-interaction, and how collaboration and technology can ease sharing of knowledge among group members. The purpose is to scaffold or support students in efficiently *learning together*, and the object of scaffolding is to give the student the possibility to deal with a problem they would have difficulties doing on their own. When the needed knowledge is absorbed, the guidance will decrease so that the student is kept in control (Soloway et al., 1996). The support does not have to be in form of a person but by the use of intellectual and physical instruments.

2.5.5 Computer-Mediated Environments; Technology in Education

Our society is often referred to as an information and knowledge community, a notion that introduces new challenges in the educational system (Säljö, 2001). The communicating tradition had its origin in a community with much less information load, and within a sociocultural perspective, what we are experiencing today "is the first severe challenge against the transfer metaphor that has been the foundation for institutionalised learning" (Säljö, 2001 p.256).

Teaching, and its tradition concerning communication, is influenced by the era in which it was established (see section 2.4). Learning at that time, as discussed in previous sections, involved repeating facts and the given knowledge introduced by the teacher (section 2.4.1-2.4.2). Learning today is more about gaining our own experiences through the physical and intellectual tools where they can be used as a part of concrete activities (Säljö, 2001). Knowledge is to a large extent built into various artefacts through the use of technology. The consequence of this development is that learning also deals with the mastering of new technologies.

Säljö (2001) argue that information technology is part of a thorough transition that requires advanced skills when it comes to reading and writing, "producing text is much more demanding than consuming it. Writing is not a reflection of reading, it presuppose other qualities relevant to the composition of a message so that it reaches its readers" (p.247).

Information technologies make conditions for communication, and it also offer an environment for the use of it. Säljö (2001) indicate that information technology hold qualities that can function as support in the learning process in different ways than texts because of the ability to communicate, and through the access to information. Virtual communities form contexts for learning that resemble physical presence. Another interesting feature is the possibility to visualise and make things clear. Although this has been done for some time, through pictures and graphs, the digitalisation gives completive illustrations in the form of dynamic representations. Connected to visual representations is the simulation of reality through multimedia that can mobilize more senses than can be done by text (Säljö, 2001).

Emphasizing technology changes the traditional rules for communication in the classrooms. The traditional relationship between a student and its teacher is not as distinct as it used to be (Bjørgen, 1997). Research that has been done in connection to these alterations in the classroom has indicated that in computer mediated environments, guidance and support is

more natural than the traditional didactic instruction (Schofield, 1995) (fig.11). Learning becomes in the form of production rather than re-production, the students "writes, synthesize and analyse in higher degree" (Säljö, 2001 p.253).

Ordinary Classroom   - Didactic Learning Approach
                     - Reproduction

Computer Mediated Environments   - Guidance and Support
                                 - Production
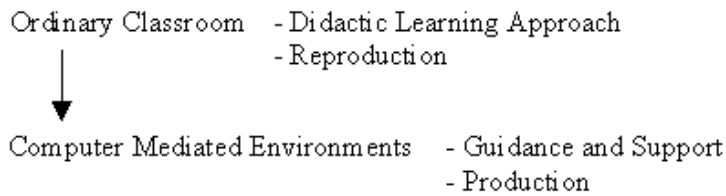
Figure 11: Indications within research when moving instruction from the classroom to the virtual environment

This, Säljö (2001) argues, is one of the most revolutionary aspects of the technological influence. Learning changes from being re-production in the form of memorizing, to becoming more creative, and the emphasis has shifted from a focus on the individual learner to the group. The educational environment is also increasing with the chance of reaching out to educational communities in other places of the world. "The occurrence of an artefact of this kind looks as though it gives the students something concrete to collaborate around in a way that gives an experience which feels natural and productive" (Säljö, 2001 p.253).

The educational environment is the socially organized zone of development, the place for exploitation of developed knowledge systems, this involve a dilemma because of the different satisfactory levels that comes with individual expectations.

Within the field of CSCW, the importance when it comes to understanding how individuals in an organization collaborate and organize their work routines is emphasised. Technology has in large been designed based on the formal work instructions given at a work place, a perspective considering only the data flows and files in a company (Grudin, 1994). Such a framework has shown to be quite different from the working reality where it is the informal practice, which determines the actual work flows "hard reality has condemned this idea to the reign of utopia. In fact, the conventional notion of organizations as being monolithic entities is quite naïve. Organizations are not perfectly collaborative systems" (Bannon & Schmidt, 1991 p.13 of 20).

Although the theoretical concepts describe how collaboration advance learning, one ought to remember that working together may also cause friction, dissension, and discord, and that collaborative situations may not always result in a positive outcome.

2.6   Summary

This chapter has given an introduction to the framework that will be the foundation for analysing a knowledge management system used in education, CSCL and the sociocultural perspective. These are the theoretical foundations for this study. Themes related in this context that have been discussed:

- The research field of CSCL (Computer Collaborative Learning)
    - Background for CSCL, CSCW (Computer Supported Cooperative Work)

- Perspectives on the concept of learning and knowledge building
    - The individual vs. the group

- The history of instructional technology
    - Past paradigms
    - Various learning theories

- What lies within CL (Collaborative Learning) and CS (Computer Support)
    - Collaboration as opposed to Cooperation
    - Various opinions regarding the use of computers in collaborative situations

- Theoretical framework – The Sociocultural Perspective
    - Learning and communication
    - The role of artefacts and mediation
    - Zone of Proximal Development
    - Computer-mediated environments, technology in education

The next chapter describes the pre-project that this thesis is a part of, a project that wanted to explore the potential for using a knowledge management system, where knowledge elements are annotated and augmented by readers, in education. The knowledge management system, so-called weblogs, will be the focus of analysis, an analysis based on CSCL research, and socioculture especially, as elaborated previously.

3.   Scenario

3.1   Introduction

This chapter will introduce the scenario for this study, the pre-project "Collogatories: Collaborative Learning Communities on the Web", which this thesis is a part of. The ideas within this project were explored in a Pedagogical Information Science Course at the University of Bergen in the spring semester of 2003[1]. Following, there will be a thorough description of the weblog phenomena, its features, and the use of this communication system, which will be employed by the students in relation to the subject under study.

3.2   Pre-Project – Collogatories

"Collogatories: Collaborative Learning Communities on the Web" is an InterMedia pre-project funded by ITU. ITU, established in 1997, is a national research- and expertise network for Information Technology in Education. This network intend to contribute to the conversion of the educational system, so that students and teachers become users of information and communication technology (ICT), and in that respect also transform into being developers within a pedagogical perspective. ITU have in view to procure and mediate systematic knowledge relevant to the use of ICT through interdisciplinary collaboration; how ICT can be employed, which possibilities does ICT hold that encourage learning and development, which effects do ICT have on education. Their main goal is to obtain improved instructional quality with the use of ICT (ITU, 2003).

The pre-project started with an observation that an exiting new form of communication had exploded on the web the past few years, so-called weblogs (also referred to as blogs). A weblog is often described as a knowledge management system where knowledge elements are annotated and augmented by readers. They have been characterized as tools with which to think about what you are researching, its values, connections and links to other aspects of the world. Weblogs has altered the way in which people approach online communication, and they have challenged traditional forms of written expression. Weblogs has gained increasing popularity over the last two years, spreading to all spheres of the net, including a few ventures into education (Wasson, Baggetun, & Andersen, 2003).

---

[1] The course description can be found at http://www.ifi.uib.no/undervisning/iv352/iv352.html

Collogatories is the conception of media rich learning environments "that begin with the *intention* of collaboration around a particular learning domain. Collogatories evolve through new compelling forms of content expression and participation in new learning experiences. They can be intentional networks or serendipitous constellations of knowledge elements (i.e., content) and the participants (learners, professors, others) behind them" (Wasson & Baggetun, 2003 p.7).

The pre-project explored the potential for using weblogs in education, and study existing use. The application stated that there would be a literature survey regarding research on weblogs in education, and an investigation concerning how multimedia content and mobile technology could support weblogging. The activity where reduced respecting handheld exploration activities and multimedia support because of time constraint and expenses. However, these are activities they wish to pursue in the future (Wasson et al., 2003).

An unstructured environment gives the students an arena to work with in addition to the physical presence in a seminar. As apposed to a structured framework, which give detailed statements of how to deal with specific assignments, unstructure is meant to give the students the ability to freely explore the collaborative possibilities that lie within the weblogging tool. Interaction among the students is not enforced but encouraged, and the computer provides a context where learning can take place. This option is chosen to see how the students adopt to the blogging in collaboration. There is given an example of weblogs used in a structured environment in chapter 4, related studies.

3.2.1 Challenges

The course structure:

- The subject study is in large based on seminars that are accomplished throughout the semester. In all there is only 10 gatherings during this time
- Each seminar has a duration between 5 and 6 hours
- The student's is supposed to prepare previous to each seminar by means of reading articles and books in relation to the curriculum
- The lecturer divides the student's into groups, each group consist of 3 to 4 student's. One group has to present an article at each seminar that is used for discussion

- Throughout the semester the student's is to deliver 2 assignments that is considered as a part of their examination. The student's can work on this individually, but they are encouraged to collaborate in groups

Challenges relevant in connection to the course:

- As a supplement to the seminars there is a need for an additional environment to communicate in
- One problem with seminars is that they has a tendency to be one-way (Oldervoll, 1997)
- Learning is all about reading, listening, talking and writing. Student's has a tendency to use most of their time on the two first elements (Dysthe, 1997).

3.2.2 Why Weblogs?

An important part of the course is to learn theories, which is relevant in regard to CSCL, and what this field emphasise as meaningful. This means learning new ways of appropriation and thinking, and try to approach the work in this field through discussion and collaboration. Thinking needs a basis; it needs historical knowledge that is gained through reading and lectures. But to learn a way to think require responses on those thoughts (Oldervoll, 1997). One solution would be to increase the number of seminars, but that was not an option. Another solution would be to get the student's to write, because it requires an active approach towards the material, but they still need response on their thinking, and the lecturer did not have the ability to read more written assignments. Writing is useful on two levels; the process itself is useful, and the writer has the ability to get feedback on their own products and thus their own thoughts. To write without the response is therefore useful, but not optimal (Oldervoll, 1997). One problem is that it is difficult to get the student's to write without being able to offer response. When the capacity for respondence by the lecturer is not an option, an alternative would be to organize the student in a way that makes it possible for them to read and discuss the assignments with each other.

The reasons for choosing weblogs to be used in this course were many. Giving the students some sort of hands of experience with the use of technology, and letting them learn how to manage a weblog, would be a way to provide for this (Wasson et al., 2003). The weblog were to be used as tools to log personal experiences throughout the course, and this way become a medium for the participants to express themselves to other students attending the course and to

the internet public outside this community (Wasson et al., 2003). The weblogs were also a medium for the students to actually be participators relevant to the material read about, which deals with CSCL. A weblog as a technological artefact can be adjusted to bring about the formation of collaborative networks between the students. The CSCL research is relevant for studying the application of weblogs in education, because "the focus is on the process of learning, on how knowledge is shared, and how meaning making occurs" (Wasson & Baggetun, 2003 p.9).

3.2.3 Introducing the Weblog to the Course of Analysis

The lecturer introduced the students to the use of weblogs in the initiation of the course. Jill Walker[2], at the time a PhD researcher now a lecturer at the Faculty of Art, was invited to give the participants an introduction into the world of blogging. Walker is a genuine blogger herself, and a great many tune in daily to keep up with experiences from her professional and personal life. She has publications regarding the notion of weblogs; chronicles, short papers, personal publications, and a cyber text yearbook amongst others, and has also written the definition[3] of the weblog concept for the *Rutledge Encyclopaedia of Narrative Theory*, Forthcoming from Rutledge in 2005. Walker is the supervisor of the Web design and Web aesthetics course given as an example in chapter 4.

Trying to give a complete overview of the usage, examples of the content in different weblogs were displayed. Giving a tour in her own, her students, and also other blogs of interest, the participants got an impression of the possibilities lying within this tool. The intention of this touring was to clarify that the content itself is not the most significant part of blogging, but that it is the collaborative ability that is of importance.

In the following section there will be given a thorough description concerning what a weblog is, how it is used, and what features it possesses.

---

[2] http://huminf.uib.no/~jill/
[3] http://huminf.uib.no/~jill/archives/blog_theorising/final_version_of_weblog_definition.html

3.3 The Weblog and its History

The search for weblogs started where it had its origin – on the Web – and it did not take much time to realize that this phenomenon was rapidly gaining the charm of novelty all over the world. There were no problems finding sites that spoke warmly of weblogs, but discovering research articles regarding the subject was difficult. Mortensen and Walker write in their report "Blogging Thoughts" that to date there is no published research on the topic and there are few academic writers of weblogs. The media has a tendency to speak of weblogs as belonging to popular culture or being a form of folk journalism (Mortensen & Walker, 2002).

The Norwegian newspaper "Dagbladet"[4] has established their own blog for their writers. Their information page says that the paper see big potential in the use of weblogs, and as the first Scandinavian Internet newspaper they will be utilizing the tool (Dagbladet, 2003). At present time the weblogs are only for their own authors, but they are working on adapting weblogging-tools also for their readers. Øvrebø, a reporter in "Morgenbladet"[5], writes in March 2002 that weblogging is one of Internet's most exciting phenomena, evolving from simple homepages to trenchant tools for talkative of every kind. Weblogs exists in thousands, and Øvrebø writes that the weblog-explosion indicate how the culture on the World Wide Web constantly changes into new forms of communication despite of economic fragility in the aftermath of optimistic dot.com projects (Øvrebø, 2002).

There exists many professional weblogs, written by web designers, software developers etc., but as the research community are starting to pick up on the weblog tradition there may also be academics in other areas than digital culture entering the terrain (Mortensen & Walker, 2002).

"A blog, short for weblog, is a web page that serves as a publicly accessible personal or group journal for an individual or a group". (Wasson & Baggetun, 2003 p.6) A weblog (fig.12) can be seen as an evolved form of a personal Web page, also known as a homepage. The term, thought of by Jorn Barger in 1997, refers to a web site that is "a log of the Web, indicating a record that points to material available on the World Wide Web" (Paquet, 2003a). Since the use of weblogs has come to be utilized by the common people, it has also attained its own concepts.

---

[4] http://www.dagbladet.no/weblogg/faq/
[5] http://www.morgenbladet.no/index.php?show_front=1004360

Figure 12: A Weblog Front Page

The owner of a weblog is often referred to as a "weblogger", and the abbreviatory "blog" and "blogger" are also commonly used; "usage of the word "blog" has become so common that it has recently been drafted for inclusion in the Oxford English Dictionary" (Paquet, 2003a).

Going back to its initial state, the original weblogs were link-driven sites with a mixture of links, commentaries, personal thoughts and essays, and to be able to create a weblog the editor needed to possess HTML knowledge (Blood, 2000). In 1998 the existence of weblogs counted for only a handful until Jesse James Garrett, an information architect and editor of the website 'Infosift'[6], began collecting this kind of sites in his travels around the web. Seeing that the list grew larger after each journey, Garret sent it to Cameron Barett, a freelancer and contract worker, who published the list on 'Camworld'[7]. This list provided for others, which maintained similar sites, to send their URLs for inclusion on the list. Suddenly a community grew up, and the bandwagon jumping began. In 1999 'Pyra'[8] released the weblogging tool 'Blogger', and

---

[6] http://www.jjg.net/infosift/

[7] http://www.camworld.com/ The site was originally used to post links for students attending a college class on HTML and new media design, taught by Barett.

[8] http://www.pyra.com/

with the ease these web-based tools provided, the practice suddenly became much more accessible (Blood, 2000).

3.4 The Features of a Weblog

Since the weblog genre is rapidly expanding, there exists various opinions when it comes to describing a weblog, as Ashley at IST Interactive University says "A weblog is easy to use but less easy to explain" (Ashley, 2001 p.1). Although there is a great many definitions of the term, there are features that are commonly agreed on (Paquet, 2003a). These will be described in the following.

3.4.1 Publisher

The content of a weblogging site is usually the responsibility of a single person; it can be edited by a group although this is not as usual as the individual weblog. How private an editor tends to be differ from blog to blog, but to some extent it usually reflects the publishers personality. The published content is visible to any reader on the web, and a visitor have the possibility to post comments in designated areas (fig.13/fig.14), as long as they are not black listed by the owner, which is a possibility within the system. When editing the site the author has the opportunity to save the content as 'draft' or as 'publish', if one decides for the latter the content is published at the site, choosing the "draft" option, the information is only visible to the owner. Weblogs straddle boundaries when it comes to publication for one self and towards others, existing on the fine line between what is private and what is public (Mortensen & Walker, 2002).
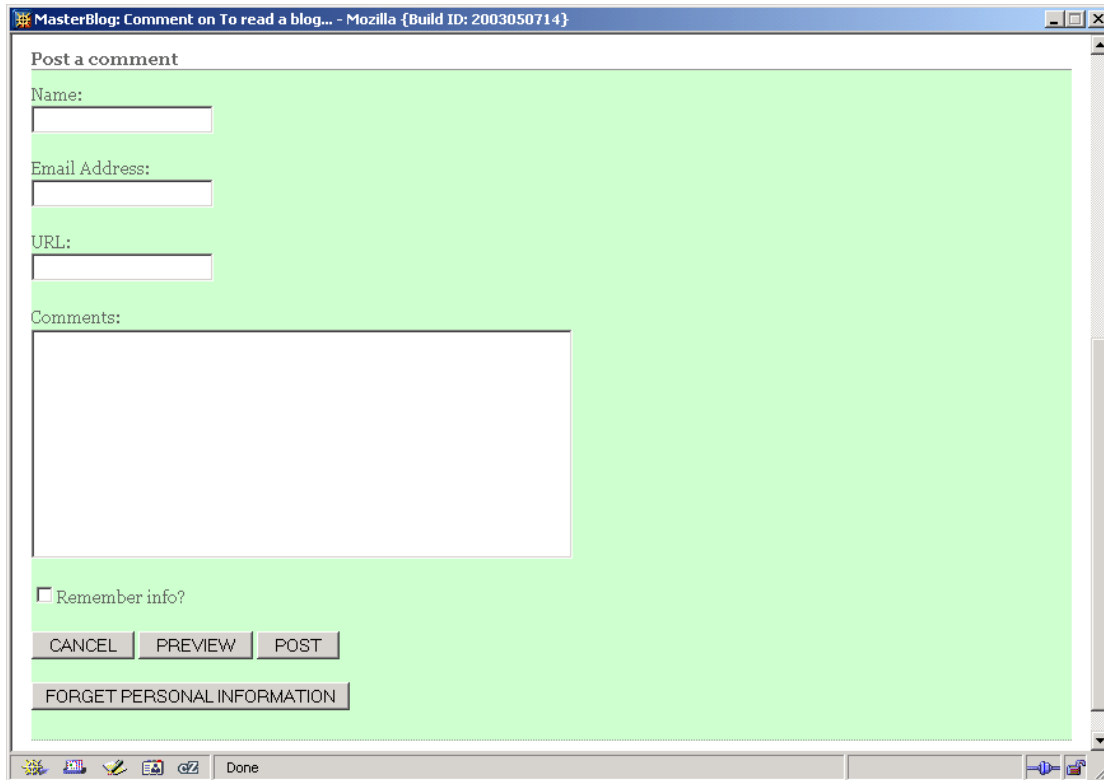
Figure 13: Comment area in a weblog
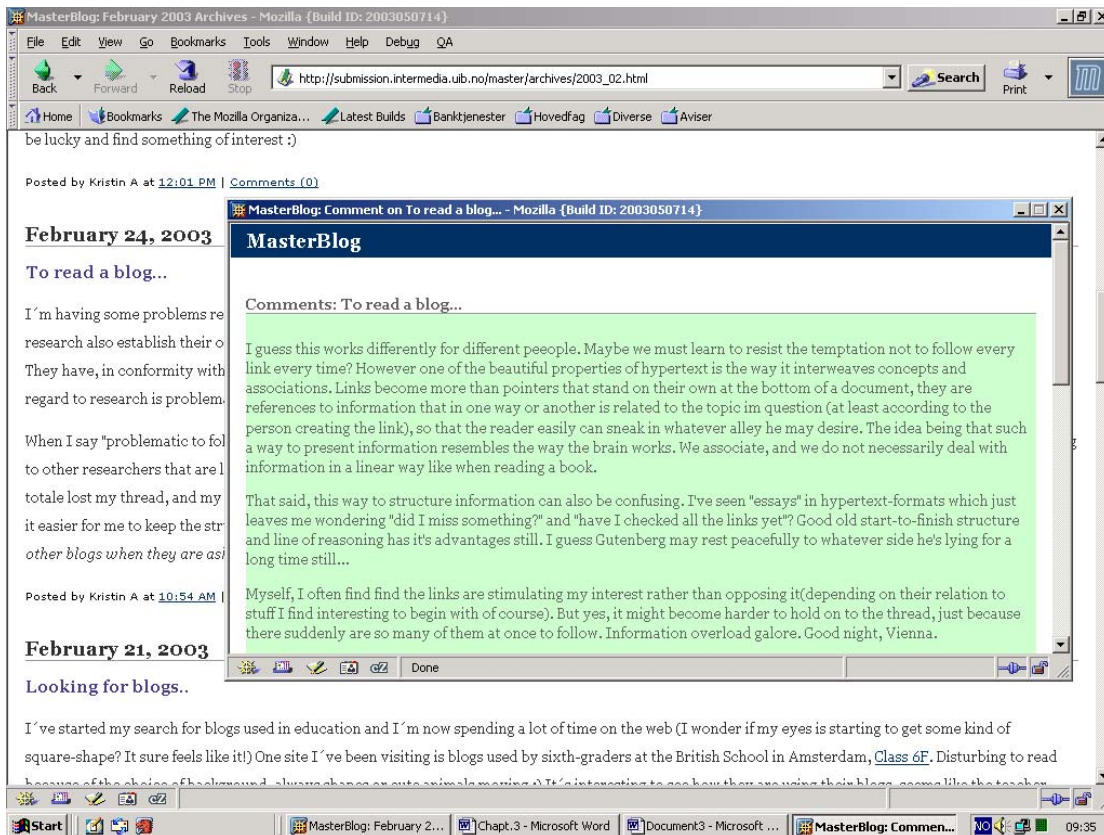
Figure 14: Comments from a reader

3.4.2 Content and Link Structures

The content appearing on the page is introduced to the public in the form of short posts, like a log, that feature hypertext links which is referencing material outside the site (fig.15). What information the content is revealing is entirely up to the editor There is usually no prescribed length for a post, and some simply consist of a single link to content elsewhere, but the customary 'behaviour' is to include additional information in the form of a personal commentary on the issue under discussion. The presence of hypertext links is one of the things that distinguish the weblog from the ordinary vanity page, in which an author mostly recounts personal thoughts and events instead of enlightening the reader and guide to additional information.

The content is not always supposed to be well considered before publishing, and some editors has as a golden rule not to alter the information after publication, or at least not after 1-2 days. The instant publication can encourage spontaneous writing, and this releases the expectations to what we write as always has to be perfect and polished (Mortensen & Walker, 2002).
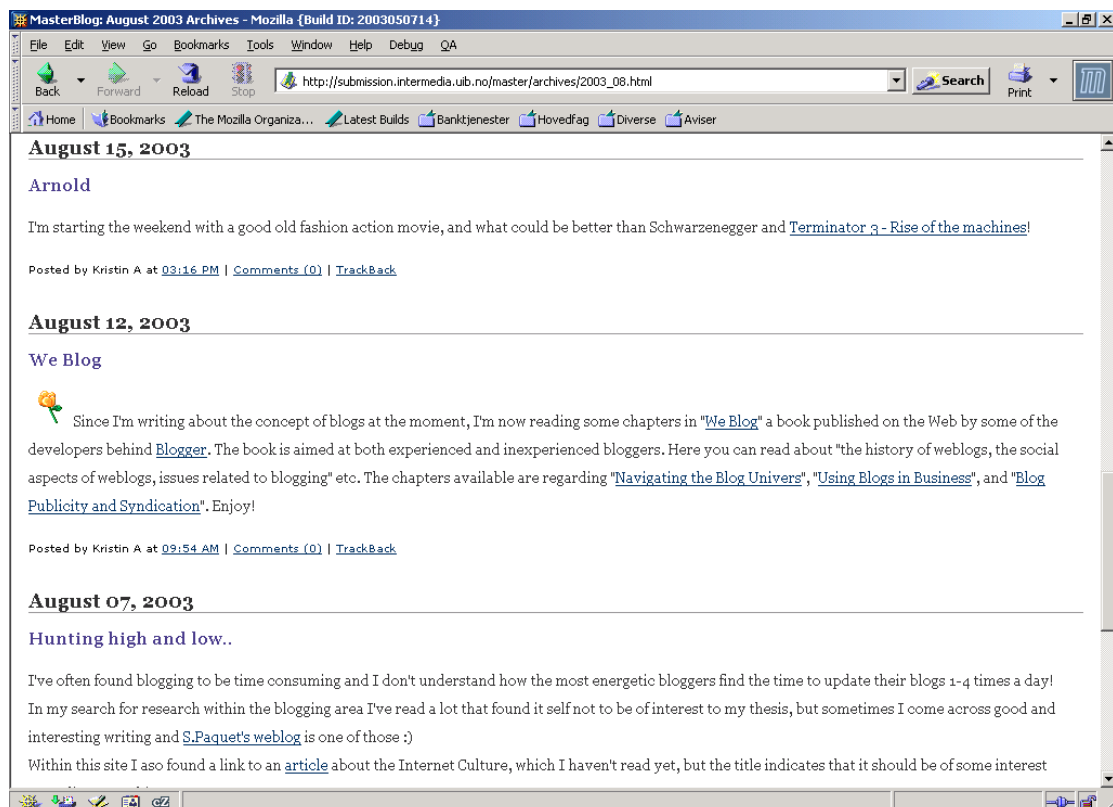
Figure 15: Content introduced as short posts. The blue underlined text is hyperlinks referencing material outside the weblog.

3.4.3 Frequent Updates, Reverse Chronological Orders

The tradition when it comes to updating the more ordinary personal homepage has not been known to include frequency. A weblog, on the other hand, is updated regular on a daily or a weekly basis. The latest posts are the newest content appearing at the top of the weblog's front page, and this characteristic creates an expectation of updates that instigate readers to visit the weblog on a regular basis (fig.16). The update frequency provide for the establishment of a relation between the author and the reader, and this relationship construction probably marks the most fundamental distinction from personal web pages that are often seen once and rarely revisited.
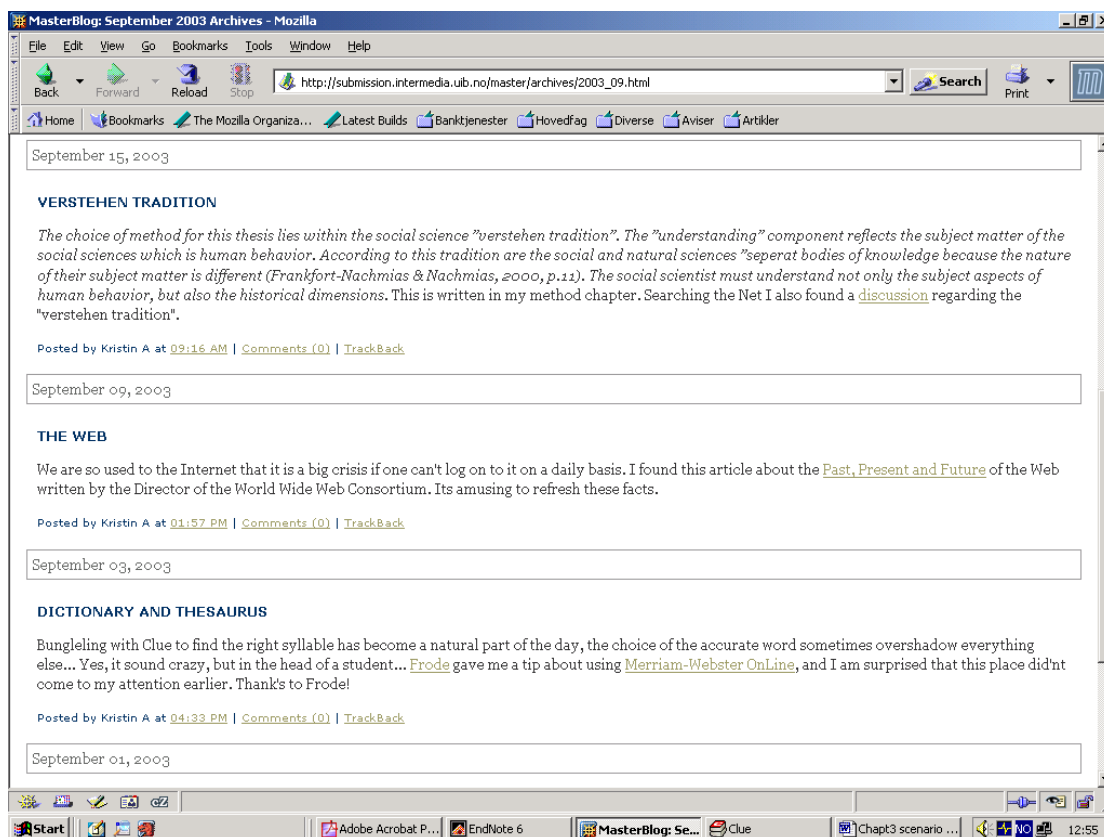
Figure 16: Content introduced as short posts in reverse chronological orders

3.4.4 Public Access

The site's content is freely accessible via the World Wide Web without restrictions such as payment or membership. But some weblogs may have as a condition that you have to register with an email and a name to get a password for use when reading the weblog. This is generally in relation with weblogs that has its origin in a specific field, like education.

3.4.5 Filing System

Because of the reverse chronological order, older posts may disappear from the front page. The content are not deleted from the weblog, but are archived and may be accessed elsewhere on the site (fig.17). Each post is assigned a permanent hyperlink, which makes it possible to refer to previous material. This 'logging' of information makes a weblog a helpful tool to work with, and seeing that the threshold for publication is low, one might go back to thoughts one otherwise would not care to mention, this can result in new thoughts that trigger new work.
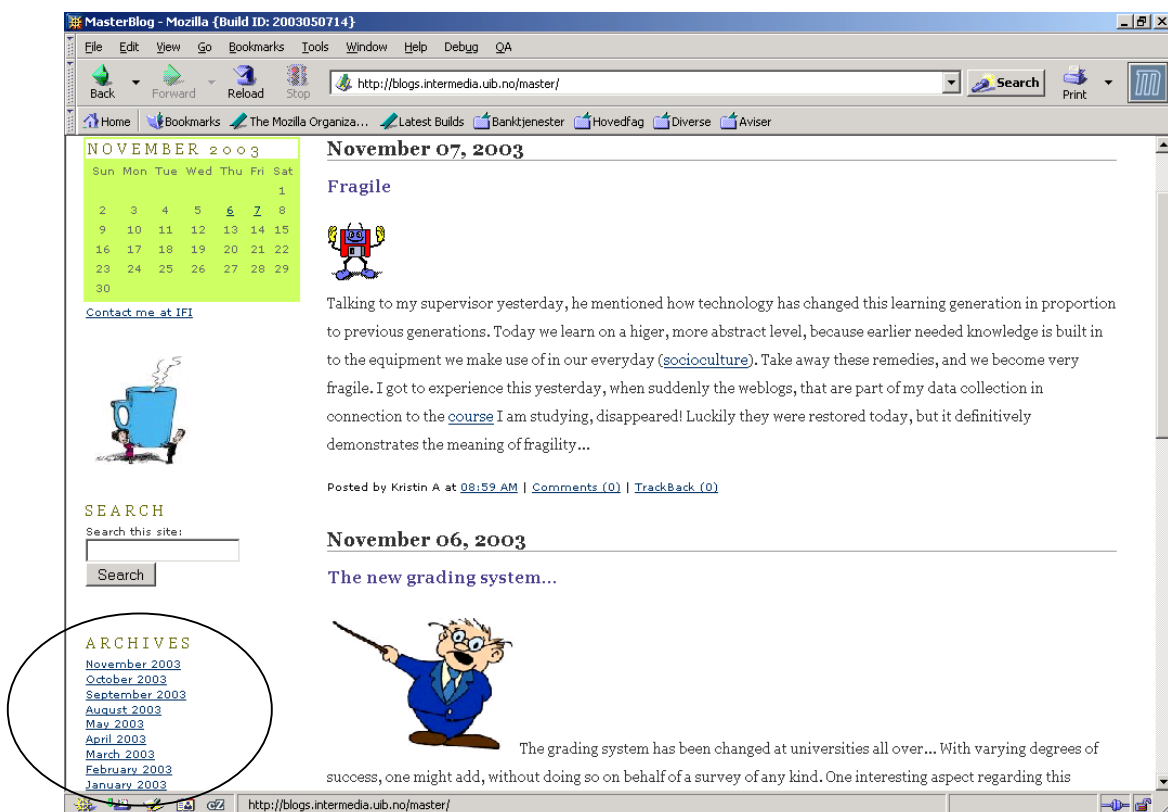
Figure 17: Archives presented on the front page in a weblog.

3.5 The Use of Weblogs

There are several reasons why the weblog phenomena have gained so much interest throughout the community on the Internet. In the following there is given some explanations of the pro and cons with the use of weblogs.

3.5.1 Reading a Weblog

People need resources to filter the tremendous amount of information that is published daily, in print as well as on the web, and a weblog can function as a sort of separator to procure information. When reading a weblog made by an editor that hold similar interest to your own you can obtain a view of possible relevant material without having to scan that person's resources (Paquet, 2003a). Weblogs offer reviews of material with an informative perspective, and noteworthy information often get several references in disparate weblogs along with views from each of their editors. This can help a reader measure the significance of a particular document even before having to look at it. "It is important to note that this filtering is a *post-publication* process, in sharp contrast to traditional publishing, where some content is culled at the source, never to be seen by anyone other than the editors. Thus this process can produce obscurity, but not censorship" (Paquet, 2003a p.7).

In relation to this study, reading each other's weblogs can give an easily accessible way to each other's thoughts and work. Finding participants within the course that wonder about the same problems opens an opportunity of collaboration. Within the frames of a seminar, many students are uncomfortable when it comes to revealing their ignorance to each other and in front of the lecturer. Within this environment it may be easier to question read material, and the students can find others that struggle with the same problems. The sociocultural perspective is emphasising the guidance from the environment to help solve problems we could not have done on our own (section 2.5.4). The weblog offer an environment to build this knowledge in.

3.5.2 Social Networking

One of the benefits that lies within the use of weblogging is the opportunity of letting information circulate freely across communities (Paquet, 2003a). Weblog editors become quite known by their regular readers. "Networking among weblog editors is most evident in two aspects. First, hyperlinked conversations can be found everywhere and attest to the existence of a web relationship. Second, blogrolling lists go further, essentially asserting that a particular weblogger has enough interest in another to regular read what he or she has to say" (Paquet, 2003a p.8).

A blogrolling list is a section on the site that lists weblogs that are read on a regular basis, it "enables one to see quickly whose viewpoints are more widely regarded. Blogrolling lists

implement a public web of trust that can be navigated to find other competent people with relevant work" (Paquet, 2003b p.4).

This circulation of knowledge between participants is one of the reasons why the use of a weblog is interesting in an educational setting. This kind of social networking opens other forms of communication that sometimes are limited in face-to-face conversation in groups. The physical constraint is that the participants need to be present at the same place at the same time, with the use of weblogs it is like a permanent conversation without those constraints, and the content can be read long after its publication and newcomers can engage whenever they like. There is also a limited radius of influence with a physical presence " you can not link to a face-to-face conversation" (Paquet, 2003b p.3).

3.5.3 Restrictions

The students are often not used to publish their writing in a public sphere. With the use of a weblog the possible reader is not only other fellow students, but also other people that stumble over the weblogs during their tour on the Internet. In relation to the course the students could be restricted in their use due to fear of revealing ignorance (as they would in a seminar), or contrary, giving away victory on points to other student. These can be reasons not to engage in a public discussion.

A second reason for not adopting this practice is that may take time finding weblogs that has engaging content. Weblogs on the World Wide Web has grown anarchically since its start, they are not well organized, and it is next to impossible to adequately classify them because interests seldom fall within a defined category (Paquet, 2003b). A student can be burdened by time trying to keep up with handing in papers, reading set books, and updating knowledge by reading other students weblogs at the same time. An advantage when using the system within a course is that one can expect that the student's interests lie within the same area. On the other hand, most of them are taking additional courses they can chose to write about, and the weblogs may also have predominant private content.

A recent initiative, that has been proposed to reduce time frames, aims at developing a metadata standard to allow authors to describe their weblog in a single place, this could help locate them, although it is not yet clear whether people would want to use such a standard (Paquet, 2003b).

It is not feasible to anticipate that knowledge sharing is in the interest of every student, the issue of competition and secrecy exists, and one can expect discretion when it comes to revealing preliminary ideas (Paquet, 2003b). The norm in many circles is to restrict the sharing process to people one keep close and depend on. On the other hand, disclosure of information may be a better strategy. "[…] In an extensive open network, the one thing you can be sure of is that someone else already has the same idea as you. If you deny that fact, you relegate yourself to zooming in behind them" (Paquet, 2003b p.6).

Paquet (2003b) argues that although weblogs is a useful contribution to the growth of knowledge, it can not be expected to be easy recognized as scholarship by every academic instances, in any case not in the short term. The use of weblogs is done at the expense of formally recognized activities, although it may have a positive impact on research.

3.6 Weblogging Tools

Choosing a weblog tool for use in an educational setting is a challenge, and several weblogs and their usefulness were investigated for this context. There are several free or inexpensive weblogging services, and the little technical knowledge needed for the use of these systems makes them accessible to anyone. The most significant requirements were:

a) The tool should be easy to use, and easy to set up for the students
b) The system should be free of charge, and
c) It should hold features enabling network building among the participants (comments, trackback, blogrolls etc.)

3.6.1 Evaluated Tools

Among the weblogging tools that were evaluated were:

1) Manila (part of Frontier)
2) Blogger
3) SnipSnap
4) Movable Type
5) GreyMatters
6) The option of building a tool especially for the pre-project.

In what follows there will be given a description of the tools that were evaluated. This information is from the Pre-Project's final report (Wasson et al., 2003).

Manila and GreyMatter

Manila[9] and GreyMatter[10] are, in some ways, two totally different weblogging tools. GreyMatter is small, fast, highly extensible and completely customisable, but the system takes time to get accustomed to, even for experienced programmers and designers. Manila is part of a larger application server framework, and it is also a commercial product. It has a strong user philosophy – how they think about its use and the facilities invented for this purpose. It also has a concept of writing large pieces of text, so-called 'stories'.

Blogger

Blogger's[11] free services were a candidate because it did not require any local installation. The only thing you need to do is register at the free hosting service on Blogger's web site. However, this option is financed by commercial advertisement located at the top of each weblog, and this is not desirable in an educational setting.

SnipSnap

SnipSnap[12] is an interesting combined wiki/weblogging tool, but it is in its pre-release state, and not as thoroughly polished and adjusted as the tools mentioned above. SnipSnap as a tool, however, seem to be promising in the future.

Movable Type

Movable Type[13] is a comprehensive weblogging system that includes most of the features that are mentioned in relation with the tools discussed above (excluding 'stories' from Manila), in addition it has components of use in relation to collaboration. Trackbacks sees to notifications from one weblog to another, and this provides for the growth of a complex linking and commenting structure. Trackbacks accomplish two things; establishes a link between your entry and the entry commented on, and the referenced weblog can list weblogs (or sites) that have been referenced on. This way the reader can follow a thread to read more about requested information.

---

[9] http://www.manila.userland.com/
[10] http://www.noahgrey.com/greysoft/
[11] http://www.blogger.com/
[12] http://www.snipsnap.org/space/start/
[13] http://www.movabletype.org

Develop a System for the Pre-Project

The final option for this project was to build a system especially suited for the pre-projects own needs. The conclusion was that it was seen as a too risky task given the resources and the projects time frame.

The evaluated systems and their advantages and disadvantages are summarized in figure 18.

Evaluated Tool	Advantages	Disadvantages
Manila	Strong user philosophy – the use and the facilities. Can write large pieces of text	Part of a larger application framework, commercial product
GreyMatter	Small, fast, extensible and customisable	Takes time getting accustomed to
Blogger	Does not require any local installation	Financed service with commercial in each blog
SnipSnap	Combined wiki/blogging tool	In its pre-released state
Movable Type	Includes most features of the other systems – components of use for collaboration	
Develop a new system	Especially suited for the project	Too risky given resources and the time frame

Figure 18: Overview over evaluated tools in relation to the project

3.6.2 Chosen System

Movable Type was chosen for the pre-project as foundation for the weblogs used in relation to the course. Movable Type (MT) is a publishing system that installs on web servers to enable individuals or organisations to manage and update weblogs, journals, and frequently updated websites. Benjamin Trott and Mena G. Trott originally developed Movable Type. Benjamin Trott is co-founder and CTO of Six Apart[14], which is the company behind the Movable Type personal publishing system and the TypePad personal publishing service. Mena G. Trott is co-founder and CEO of Six Apart.

The architecture behind the system is flexible, allowing it to run on any web server platform and work with most common databases. Its customisable code and the library of third-party applications, which extend and interface with the system, mean that Movable Type can accommodate almost any custom requirement.

---

[14] http://www.sixapart.com/about

A templated output system and a publishing interface imply that data managed through the Movable Type application can be accessed in needed format. Movable Type's engine is also used to power the TypePad[15] service. TypePad give users access to the publishing features without requiring any technical knowledge, or access, to a web server.

6.6.3 Requirements

Experience in managing a standard web server is needed when installing the system. In addition, Movable Type offers an installation service where one can sign up to have the technicians install and configure the system on your server. If a simpler service without Movable Type's flexibility is wanted, one can choose TypePad instead, where the technical skill following maintenance of applications is not needed.

Core Requirements

System requirements has a tendency to change over time, as new features are developed as a continuity of keeping up to the newest inventions. These are the core requirements that were needed when Movable Type was chosen for the pre-project:

- A web server with permissions that allow custom CGI scripts
- Pearl, version 5.004_04 or greater, configured for the server
- An FTP program to upload the necessary files to your web server
- Any standard web browser on windows, Mac OS, or Unix/Linux with JavaScript and cookies enabled
- Support for the DB_File Perl (Berkeley DB) module or the MySQL database & DBD::mysql

There are two storage options for Movable Type: Berkeley DB or MySQL. Nearly all hosts with Pearl-support include Berkeley DB, and many support MySQL. It is strongly recommended using a MySQL database if the option exists on the server.

Appendix A gives a more thorough description of the features that comes with the Movable Type system.

---

[15] http://www.typepad.com/

3.7 Summary

This chapter has given a descriptive overview in relation to the scenario for this study, the pre-project "Collogatories: Collaborative Learning Communities on the Web", which this thesis is a part of. The subjects that are covered in this relation is:

- A description of the pre-project
    - Challenges
    - Why weblogs?

- Introducing the use of weblogs to the course of analysis
    - A visit from a genuine "blogger"

- Describing what a weblog is and what features it holds

- Advantages and disadvantages with the use of weblogs
    - Reading weblogs
    - Benefits with social networks
    - Restrictions with weblogs

- Evaluated tools in relation to pre-project
    - Chosen tool
    - Requirements

The next chapter introduces related studies in regard to the use of weblogs within an educational setting.

4. Related Studies

4.1 Research on Blogs in Education

It is hard to find published research papers or (academic) books on the topic of weblogs. Reasons for this can be that weblogs is a fairly new phenomenon, and second, the culture in this community implies that ideas and thoughts regarding this subjects should be made public online, and most often in weblogs. Bits and pieces are published in various papers (such as "Syndicating Learning Objects with RSS and Trackback[1]"), and workshops are organized at conventions (e.g. The "Wireless Technology, PDA's and Weblogs – Promising Technologies for Education" workshop at Education Now and in the Future (EFN)). Conferences are starting to take form about and around this topic (e.g. BlogTalk and BloggerCON), and online journals are calling for papers that analyse and critique situated cases and examples drawn from weblogs and the weblog community. Books regarding weblogs have been published, but these are technical in nature introducing how to utilize weblogs (Wasson, Baggetun, & Andersen, 2003).

In the following there will be given a report on the first weblog conference, and highlights regarding those sections that emphasised education. There will also be given examples of weblog projects, research initiatives and weblogs in education.

4.1.2 BlogTalk Conference

The first European Conference related to Weblogs, BlogTalk, was held in Vienna, Austria, on May 23-24, 2003. The Centre for New Media[2], Danube-University Krems, was organising the event. Twenty proposals from academics, industry, media and 'bloggers' were accepted. The educational use of weblogs was one of the main topics at this conference, and it got a lot of attention among the participants. Wrede (2003b) talked about 'Weblogs and Discourse' where he states that weblogs could be a tool for use in higher education and research. Wrede (2003b) argue that weblogs can

- Improve discourse
- Be a supportive tool for teaching and learning
- Have benefits for educational institutions

---

[1] (see Merlot International Conference, 2003)
[2] (see Center for New Media, 2003)

"Weblogs are usually a form of writing in public and with the intention to offer opportunities for communication. A weblog is a constant invitation for conversation – directly and indirectly" (p.2).

This can be seen as being in opposition to most Learning Management Systems (LMS), which usually are used by an initiated environment (password protected), and in the supervision of an instructor or administrator (Wasson et al., 2003). Wrede (2003b) emphasise this point, "there is no teaching style suggested by weblogs other than to encourage learners to freely explore, express, criticise, collaborate and share" (p.7). He continue to say that "if there is an approach to teaching that encourages learners to generate knowledge and to express own standpoints openly and continuously then weblogs can support this" (p.9).

These opportunities for serendipitous communication are seen as important especially in a collaborative learning perspective (Wasson et al., 2003). This is a kind of loosely coupled collaboration where common interests lead to the formation of groups and communities (communities of interest) as opposed to designed collaborative learning scenarios where local groups are formed and managed by and instructor (Wasson et al., 2003).

Efimova (2003), another speaker at the conference, talked about how weblogs could be 'stickier'. With this she meant that we have to understand how we can turn 'would be bloggers' into better bloggers. In her study of 'established bloggers' (n=62) and 'would be bloggers' (n=20) she focused on motivation, context, technology, and personal characteristics. In one tentative analysis of technology, and the obstacle of mastering weblog technology, she found that "for some users [technical] problems are opportunities for learning, while others would like to focus on writing and would benefit from improved usability and support for installing and customising weblogging tools" (p.7).

There are some indications that active bloggers are technical competent or Internet savvy, but while online weblogging services (e.g., blogger.com, manilasites.com) are making it easier for non-technical 'would be bloggers' to start blogging, it can still be a technical challenge with the managing of templates, e-mail preferences, trackback[3] etc. (Wasson et al., 2003).

In a collaborative learning perspective it is also interesting to see her analysis of weblogging tools as being initially developed to be personally easy to use publishing tools, and not tools for collaboration, educational use or content management (CM) (Wasson et al., 2003). It is,

---

[3] See Appendix A for a description of these features

however, in these areas that established bloggers really see their value, and "Bloggers are discovering and pushing new unexpected use of blogging tools and then often get frustrated because the required functionality is not there" (Efimova, 2003 p.7). This has led bloggers themselves to develop the tool and functionality that they need, thus lot of the weblog functionality is made 'by bloggers for bloggers' (Wasson et al., 2003).

4.1.3 Weblog Projects

Wrede (2003a) has initiated a weblog project at the University of Aachen called 'Weblog Campus'. In this project they see weblogs as being used as "mediating tools for the realization of fundamental methodical re-orientation of teaching"[4] (p.1). A re-orientation from students as passive recipients of information to motivated students engaged in self-directed learning activities (Wasson et al., 2003).

A similar weblog project has been initiated at Harvard Law[5] where 'super blogger' Dave Winer is consultant, leader, and chief editor of the main weblog. Winer (2003) states, "We're studying weblogs and evangelising them. We're exited about how this technology might be used in all the activities of the university, for faculty, administration, students, alumni, staff" (in Wasson et al., 2003 p.10).

There is also a blog project at Stanford[6] that sees weblogs as a possible tool for supporting multidisciplinary work. They envisage that "multidisciplinary work becomes more and more important" (Wasson et al., 2003 p.10).

In Norway there exist some local weblog projects. In particular one can mention Grüters-Eiken (2003) PhD project proposal where she sketches out research on weblogs in education and it's opportunities for self-definition and 'buildung[7], and Lane Lawley's (2003) grant proposal in regards to establishing a Microcontent Research Center. She describe the center that "would sponsor, collect, and disseminate research on the topic of microcontent publishing – in particular weblogs (or 'blogs') – as a tool for collaborative teaching, learning, and research" (Wasson et al., 2003 p.10). These are projects that are worth following. If they attain funding they will generate research about this new medium over the next few years (Wasson et al., 2003).

---

[4] Translated from German (bybabelfish.altavista.com)
[5] http://blogs.law.harvard.edu/about/
[6] http://www.stanford.edu/dept/itss/projects/blog/
[7] German "Bildung" – Norwegian: "dannelse"

4.2   Educational Weblogs

There are considerable projects exploring the use of weblogs in education, such as Weblogs in Education, Edublogs, Weblogg-Ed and SchoolBlogs among others. "These sites is focusing on the practical use of online logs in teaching: the pedagogical effect of letting students publish and the potential gains in cooperation" (Mortensen & Walker, 2002 p.252). Web publishing tools introduced with Blogger[8] and Manila[9], which allows users to publish material to the web using a simple browser-based interface, has effectively lowered the technology barrier, allowing faculty and students to take advantage of the internet as a technology that bridges space and time, and enables communication on a global scale. The characteristic of weblogs makes ideal spaces for both presentation and discussion of knowledge and information.

Weblogs that are used in combination with education are often referred to as SchoolBlogs[10]. SchoolBlogs is meant to give the students the possibility to express them selves in their own terms, and the attendants has the feasibility to discuss information within an individual educational establishment.

In what follows there will be a brief introduction of weblogs that are established, in one way or another, in connection to education. There will further be a more profound description of a course at the University of Bergen, at the Faculty of Art, that has been using weblogs as a main ingredient throughout the semester. This course chose to use the weblogs within a structured framework, in contrast to the course of analysis that utilized unstructure. The example can give an overview of other ways to make use of weblogs in relation to a course at the University level.

SchoolBlogs

SchoolBlogs was set up by Peter Ford, a teacher at the British School of Amsterdam, and Adam Curry, ex MTV-vj and co-founder of the United Resources of Jamby. The intention with this co-operation was to make the potential of weblogs available to the educational world, and the site is offering free creation and hosting of individual schoolblogs.

---

[8] http://new.blogger.com/home.pyra
[9] http://manila.userland.com/
[10] http://www.schoolblogs.com/stories/storyreader$265

Weblogg-ed

Weblogg-ed[11] is maintained by Will Richardson, Supervisor of Instructional Technology at Hunterdon Central Regional High School in Flemington, NJ. The site is established to gather information and ideas for the use of weblogs in the classroom, it is also meant as a forum where teachers can ask questions to the teaching weblogging community, which in turn will help reflect over their own teaching. It is also intended for problems and issues related to weblogs in education.

Educare

Educare[12] is a Manila site hosted at the Centre for Educational Technology[13], Middlebury College in Vermont. The purpose of this weblog is to develop ideas, discussions, and projects around the notion of educare, the Latin meaning to lead out from which education is derived. This weblog is also about instructional technology. Educare is meant to be a space for teachers and students to come together to form communities concerned with liberal arts, education, technology, and the development of certain frames of mind.

DV for Teachers

This is a site[14] by Tim Merritt, at the Instructional Technology Centre in the College of Education at Georgia State University in Atlanta, dedicated to help educators with the ins and outs of digital video, from Pre-K to PhD. Merritt himself is teaching the basics of Digital Video (DV) to all sorts of educators, undergraduate majors in education who are training to work with preschoolers, to PhD's who want to post a video clip of some best practices on a web site.

Kairosnews

Kairosnews[15] is a discussion community for educators interested in the intersections of rhetoric, technology and pedagogy. Members post information to the main page available to the community to read and discuss. Editor and Administrator is Charles Lowe, finishing a PhD in Rhetoric and Composition studies at Florida State University. To participate one need to register with a username and an email address, Kairosnews then send you an email with a password to get access. Once you log in, you are ready to post information and comments.

---

[11] http://www.weblogg-ed.com/
[12] http://manila.cet.middlebury.edu/educare/stories/storyReader$41
[13] http://cet.middlebury.edu/
[14] http://dvforteachers.manilasites.com/about
[15] http://kairosnews.org/node/view/2408

EdBlogNet

The Educational Blogger Network[16] (EdBlogNet) is a community of teachers, educational professionals and supporters who use weblogs for teaching and learning. The network assists members to advance weblog integration in education. Its purpose is to help its members, kindergarten through university, to access and use weblog technology for the teaching of writing and reading across the disciplines.

4.2.1 Web design and Web aesthetics – Structured Use of Weblogs

At the Department of Humanistic Informatics, at the Faculty of Arts, they have been using weblogs as an important part of one of their courses, Web design and Web aesthetics. In what follows there will be given a description of how they have chosen to solve this usage in relation to their teaching. This is an example of weblogs used in a structured educational environment, in contrast to the subject under study that has chosen unstructure to see how the students adopt freely to the blogging in collaboration. In relation to examples, in the form of figures, all names are fictitious, and the original Norwegian text has been translated into English. The original text can be seen in Appendix B.

The Main Course Weblog

The course site itself is in addition to an information page also a weblog (fig.19). Here you can find further particulars about the lectures, what the student are suppose to do each week, changes in the schedule, and tips and ideas with links to sites that can be helpful for their learning progression.

---

[16] http://www.bayareawritingproject.org/eBN/about

Figure 19: The weblog to the course Web design and Web aesthetics, which also function as an information page

On the right side in the weblog (fig.19) there are links to notes, summaries and practical information about the modules in this department. There is also devious ways to time schedules, syllabus', and a long-term plan for the semester, deadlines, evaluations and the curricula. You will also find an overview of the themes in the weblog and an archive over former posts, an outline over the newest comments and the weblog (or homepage) to the lecturers and students within that course. There is added a search engine at the site, which helps you navigate through the weblog in a more time sparing and effective manner.

The course weblog contains information about projects the students are working on and links to the student's individual weblogs with reference to their own comments. There is also talked about happenings outside the existence of study, for instance where the participants at the course have met in social occasions (fig.20).

February 27

Faces and Names

Cathrine is having a party tomorrow (if you weren't attending the lecture today you can get the number from one of your fellow students). And there is other ways to get to know each other to. Lisa wrote the other day that "Yesterday when I was attending class I suddenly found it sad that I know most of the names of my fellow students, read their blogs, without knowing their faces in class" Lisa is suggesting pictures in the blogs, and has now a picture of herself in her blog (great banner by the way!) Others that want to do this?

Posted by lecturer at 04:55EM | Comments (0) | TrackBack

Figure 20: Extract from the course weblog written by lecturer. The blue underlined text is referring to sites outside the weblog keeping additional information.

The Use of Weblogs Through the Course

As part of the course the students will work on practical projects in groups. They will be directly trained in writing when using their own weblogs throughout the semester. It is expected that each student is using at least a couple of hours every week searching through the web, and sites that are of interest are discussed in the practical assignments.

The students are encouraged to use their weblog to keep a log over their reading and as a notebook for their thoughts. The individual weblog is set as background condition for 40% of the student's grade at the end of the course. The student's use of the system builds on requirements given by their lecturer, J. Walker. These requirements deals with:

- **Technical requirements**
  Regular use of hypertext links, every blog must hold a blogroll etc.

- **Content and communication requirements**
  Use of colours, fonts, font size, majority of the posts must contain links, good language, blog should reveal progress etc.

- **Requirements to the posts saved in their folder**
  Minimum one post should give feedback to a fellow student, at least one post should contain something technical etc. (This folder is graded by the lecturer).

In the beginning of the course, the students work with basic technical themes. They are given training in putting up, accommodate and writing in their own weblogs. The students know that their teacher probably is reading their weblogs, so they have some pressure regarding regular updates.

Observations of the Course Use

The students are given specific subjects that are to be discussed in their weblogs, this means that some themes are repeated in all the individual pages (fig.21 and fig.22).

March 27

Ahierarchy

Today we were looking at websites that is edified ahierarchic. I looked at Tor Åge Bringsværds dictionary novel "Hell. They have lowered the ceiling again" from 1971. You could read it in two versions, a small one, which pops up as a small window, and in regular html format. This site is based on an already publicised short story. The point is that you get through the story by links.

Posted by Lisa at 06:28EM | Comments (1) | TrackBack

Figure 21: Extract from a students weblog. The content is related to a given assignment

---

March 28

Unhierarchic Websites

Today in 105 we had group work about Unhierarchic Websites, my group got a site regarding moles "moles, a web narrative", one could read about important aspects in a woman's life with her moles as kind of a red thread between the different episodes…

Posted by Ole at 03:34 PM | Comments (0) | TrackBack

Figure 22: Extract from a students weblog related to a given assignment

All the student weblogs have some similarities regarding the language they use and form of content. Except for subjects that can be directly put in relation with reflections regarding professional themes, they all use this channel to dispose of frustrations, both about their social life and also when it comes to technical material (fig.23).

January 30

My Firs Blog

Putting up this blog is some of the most boring things I have ever done in a long time. In addition the site looks terrible ugly! I don't understand why anyone should bother reading this. Even less how I'm suppose to benefit from writing my thoughts regarding the course here. Except the needed 1500 word I need to get permission to take my exam.

Posted by Helen at Januar 30, 2003 07:15 EM

Figure 23: Extract from a students weblog frustrated over having to use the system

There is trace of relations when reading the weblogs; students help each other with problems, gives tips and advice needed to solve given assignments, and they talk about one another in the individual pages, linking directly up to their fellow students through hypertext linking (fig.24).

March 20

Girls and Data

Ole writes about girls vs. boys in the data world. Have wondered if I should write about quota systems within data studies. I've heard that at NTNU with its succeeded "girls and data" project was less successful because of a leap in competence within the classes.

Posted by Lene at 01:45 PM | Comments (3) | TrackBack

Figure 24: Extract from students weblog relating her content to a fellow student

4.3   Summary

This chapter has given a report in relation to the first European Conference related to Weblogs with an emphasis on the sections regarding education. In addition there is given examples of weblog projects, research initiatives, and weblogs in education. This chapter can be summarised in the following points:

- Introduction to research on blogs in education
  - o   The BlogTalk Conference
  - o   Weblog Projects

- Educational Weblogs
  - o   Examples of weblogs somehow related to education
  - o   Weblogs used within a structured framework at the University of Bergen

The next chapter will introduce the research design that is chosen as the methodology necessary for the analysis of the weblogging tool, and the student's use of the system in regards to this thesis.

5. Research Design

5.1 Introduction

This chapter is introducing the research focus and the research questions relevant for this study, before going into different research methodologies that can be utilized within the field of CSCL, and the methods chosen for this thesis. Sources of data generally collected in a qualitative context is discussed before a more descriptive overview relevant to data sources in this study; interviews and observations of the weblogs in the form of document analysis, are elaborated. The last section summarizes the methodology process concerning this particular studied case with a short point by point list of this process.

5.2 Research Focus

The focus is on student's use of weblogs in a Pedagogical Information Science course in the spring semester of 2003. The weblogs were introduced in the course in order to give the students some sort of hands of experience with the use of technology, and were to be used as tools to log personal experiences throughout the semester. The weblog environment that was utilized was unstructured so that the students could freely explore the use of weblogs in their own pace and without restrictions.

The focus within this study is related to how the students utilize the system. A weblog function on two levels:

a) as a personal log for the student, were the tool is used to archive the published postings, and

b) as a collaborative environment, were the students can read and comment in each other's weblogs.

In this relation the emphasis will mainly be on the latter, although it is difficult to see them as two separate functions. It is interesting to see how the students in this particular case adapted to the use of weblogs, and if they would collaborate within this virtual environment, and if this use would have any effect on their educational outcome.

The use of the weblog system can be placed according to Lipponen's (2002) description of 'collaborative use of technology', and Crooks (1994) 'interaction through the computer' (see section 2.4.4). The emphasis is that the weblog system chosen for this study (see section 3.6 for a description of the weblog system) is not software that was developed in the capacity of being collaborative educational software, but it is rather used with the intention of collaboration within the course (fig.25). The interaction takes place through the computer with the use of the World Wide Web. Salomon's (1992) effects obtained with, or of, a tool will refer to the changes related to the use (section 2.4.4).
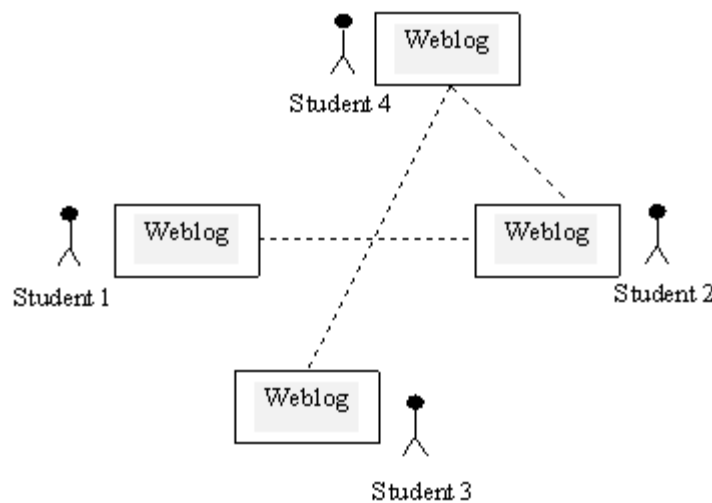
Figure 25: Student's collaborative use of the weblog system through the use of Internet

Studying the social interaction with the use of technology include analysis on a micro level. This affect the gathering of the data, the focus, and the consequences when it comes to generalization (Patton, 2002). In trying to analyse their use, the weblogs were monitored throughout the semester. The emphasis was on the hypertext links between the various weblogs to see if they link to each other. The content in the weblogs were analysed to see if the students write about each other. Any comments given within the weblogs were analysed to see if the students got response on their postings. There were also completed interviews in order to get hold of the student's personal experience of their use. How the participants have experienced the use of the tool is an important element in order to be able to analyse the process of how the weblogs evolve. One thing is what can bee observed, another thing is why they have been using the system as they have.

5.2.1 Research Questions

A research problem "is a question or an issue that stimulates a response in the form of a structured scientific inquiry" (Frankfort-Nachmias & Nachmias, 2000 p.46). Silverman (1993) argues that one should try to avoid detailed hypothesis and definitions within a qualitative inquiry. It is more appropriate to organise general research questions that are improved and refined throughout the process. The guiding research problems in trying to disclose the student's use of weblogs is the following:

- Content:
    - What are the students writing about?
    - Who, and what, are they linking to?

- User patterns:
    - How often do the students write in their weblogs?
    - Are there any students that do not write in their weblogs?

- Progression:
    - How do the student's weblogs develop?
    - Is there any indication of knowledge building activities in the weblogs?

What method that is used in relation to this study will be further discussed in the following section.

5.3 Choice of Research

Any given design is reflecting some imperfect interplay of resources, possibilities, intentions, creativity and personal assessment by involving participants (Patton, 2002). This study fall under the research field of CSCL, and sociocultural theory. The reason for this chosen framework is because the focus is related to the process of learning, how the students share their knowledge, and how meaning making occurs. Koschmann (1996) argues for the use of social scientific methods in relation to CSCL studies "consistent with the sociocultural outlook of its practioners, research in CSCL tends to utilize the research methods of the social sciences" (p.14-15). Research methods within social science include both qualitative and quantitative research, and arguing for the use of scientific methods does not give distinct instructions when it comes to the methodological approach to CSCL.

One of the most common distinctions when it comes to research methods is between quantitative and qualitative research. The relationship between the qualitative and quantitative approaches has at times appeared to be tense. Grønmo (1982) says that the methodological conflict is often summarized in the form of two contradictory assertions; "if you can't count it, it doesn't count" and "if you can count it, that isn't it" (p.1).

As well as the distinction between these two methodologies, there are other differences made. Research methods have according to Myers (1997) been classified as:

- Objective versus subjective (see Burell & Morgan, 1979),
  being concerned with the discovery of general laws (nomothetic) versus the uniqueness of each particular situation (idiographic).

- Prediction and control versus explanation and understanding.

- Taking an outsider (ethic) versus taking an insider (emic) perspective, and so on.

Considerable controversy continues to surround the use of these terms (see e.g., Luthans & Davis, 1982; Morey & Luthans, 1984).

Most will today claim that this separation of the two methods neither is quite so disparate nor so incompatible as they seem to be, and it may be accurate to point out that this conceptual reference to quantitative and qualitative methodologies primarily refer to the characteristics with the data being gathered and analysed (Grønmo, 1982).

Grønmo (1982) argues that data can roughly be described as quantitative if they are presented in the form of pure numbers or other quantity surveying, while data represented in the form of text can be said to be qualitative. Procedures within the social science can from this be regarded as qualitative or quantitative to the extent the collection and analysis of the data are qualitative or quantitative (Grønmo, 1982). This point of view imply that the same social phenomena can hold both qualitative and quantitative aspects, be studied by qualitative and quantitative data, and that both methodologies can be gathered and dealt with by means of various methods like interviews, observations, and content analysis etc. Grønmo (1982) further allege that another important distinction between quantitative and qualitative research is that it is not a genuine dichotomy, but two extreme points on a continuum . Fig.26 illustrate different types of data placed on such a continuum.
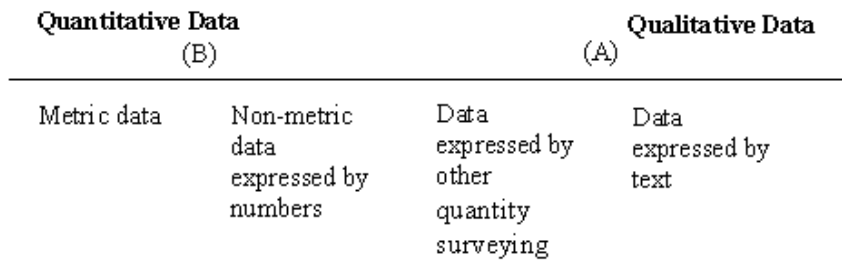
Figure 26: Various data types placed on a continuum between qualitative and quantitative methods

At the right end are the pure forms of quantitative data, metric data, including variables at the interval- or ratio level. The next type comprises non-metric data including variables at the ordinal- or nominal level (categorical data). Following are data expressed by other quantity surveying, and at the other end of the continuum are the most cultivated forms of qualitative data, often presented by text (Grønmo, 1982).

When first choosing to divide between these two methodologies, where to draw the line can vary from person to person. Some would prefer to place the division at (A), others would separate the methods at (B) only considering metric data as quantitative (see fig.26). In trying to capture the typical features to quantitative and qualitative approaches one can contemplate the methodologies as ideal typologies, referencing the ends at the continuum, but it is important to recollect that these two methods, holding different strengths and weaknesses, do not compete, they rather complement one another (Grønmo, 1982). If one should follow this strict division between these extreme points, this study could be placed from (A) to (B) as shown in figure 27.
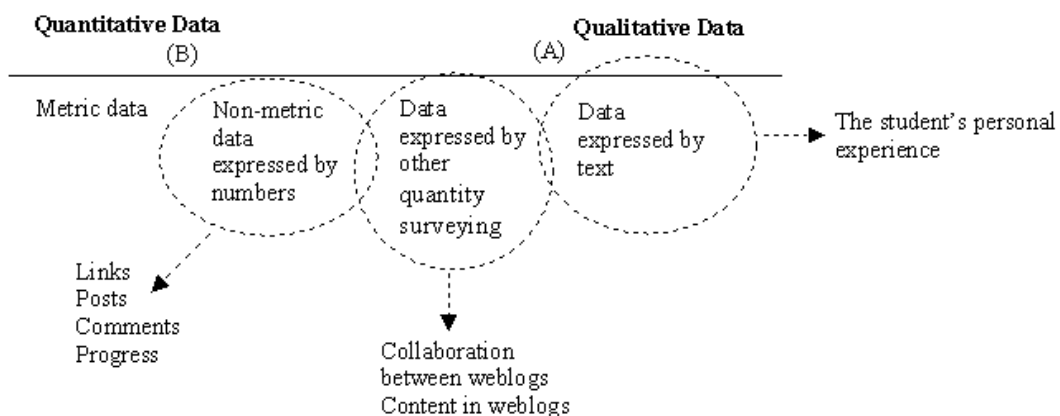
Figure 27: The study 'students' use of weblogs' placed within the qualitative/quantitative end of the continuum

The data that are retrieved in relation to this study is presented both in the form of text, by numbers, categories, and by graphs. In the collection phase, the data is purely consisting of text in the form of the written content in the weblogs and the student's experience clarified during the interview phase. In the analysing phase the content in the weblogs are organised in the form of numbers: how many postings, how many comments, and how many hypertext links. The progress of the weblogs are also presented in graphs and by numbers in order to give an overview of the weblog's development during the course semester, and the relations between the weblogs. The content in the weblogs is organised according to various categories, and the students are categorised according to user behaviour. This is organisation that places the presentation further to the left on the continuum (fig.27). The student's personal experience is introduced in the form of text.

This study, according to previously description, can be placed within a qualitative and a quantitative methodology because the collected data is in the form of text (the content in the weblog and the students experience), but the presentation of some of the data are in form of numbers and graphs. Even so, the material gathered is focusing on the use and the behaviour within the virtual environment, and the numeral presentations is meant to give a clear presentation. The emphasis is on what the students are writing about and commenting on in order to say something related to the collaborative factor within this environment. Hence one can say that this study is mainly qualitative.

Nurmela et al. (2003) argues that many recent studies has demonstrated the usefulness of the qualitative process analysis of the activities within CSCL environments (e.g., Kozma, 1999; Lipponen, 2000). The problem, Nurmela et al. (2003) argue, is that qualitative discourse analysis is very circumstantial. An alternative is to use log data that the environments store automatically about user activities. Social network analysis is a method that investigate the structure of the networked environment (Beck, Fitzgerald, & Pauksztat, 2003; Nurmela et al., 2003). Hannemann (2001) argue that "the major difference between conventional and network data is that conventional data focuses on actors and attributes; network data focus on actors and relations" (p.3). This study could be placed within this category according to this definition since it is the students and their relation to each other that is analysed in relation to this thesis. The hypertext links that are established between the participants will also be introduced in a network diagram as an overview of their link structure (section 7.2). But in contrast to social network analysis, which measure frequency and density within a network, this analysis is only using the diagram to show the connection between the weblogs. Another distinction is that each of the individual weblogs and their content has been analysed, while a social network analysis "focuses on the relations among actors, and not individual actors and

their attributes. This means that the actors are usually not sampled independently […]" (Hannemann, 2001 p.4).

There are various studies that has been using the social network analysis in relation to CSCL environments (e.g., Beck et al., 2003; Nurmela et al., 2003). Stahl (2002) allege that this is not the best method of analysis because "collaborative knowledge building is a complex and subtle process that cannot adequately be reduced to a simple graph or a coding scheme" (p.176). Peräkylä (1997) says that "there is no single, coherent set of 'qualitative methods' applicable in all analysis of text, talk and interaction. Rather, there is a number of different sets of methods" (p.201).

This study is in conformity with Stahl's argument, when mainly analysing the content in the weblogs in order to find discussions between the students. A relation between two or more weblogs does not necessarily represent knowledge building. Dillenbourg (1996) is emphasising that a sociocultural foundation will focus on the processes that come into being through the participants interaction. This interaction is mediated through the use of artefacts, which surround the process. Ludvigsen and Mørch (2003) conform when they assert that within a sociocultural perspective on learning the activity becomes the foundation for the design and analysis.

Qualitative methods often produce plenty of detailed information regarding fewer quantities. The result is increased in depth understanding of the case and situations studied, although this option reduces the generalisability (Patton, 2002). In qualitative research the instrument is the researcher, which places the credibility of qualitative methods with the skill, competence, and strictness of the person conducting the research (Patton, 2002). Guriby and Wasson (2002), attach weight to the tradition of making use of qualitative methods within research of Information and Communication Technologies (ICT). These research methods has been used in relation to educational studies, when studying classroom culture and interaction, and also when dealing with technology (Guribye & Wasson, 2002).

It would be difficult to quantitatively measure the process of learning within this study, and the intention is rather to understand the occurrence of the learning process. The aim is not to give a general answer to why the students collaborated within this system, or why they did not. It is an attempt to study, and through this study understand, how the students in this particular case adapted to the use of weblogs, and if this use had any effect on their educational outcome. Hence the choice of a qualitative inquiry, although some of the data are quantitatively introduced.

5.3.1 Reliability and Validity in Research

Silvermann (1993) point out the issue of reliability and validity as important because it is the objectivity of social science that are at stake. Qualitative design are naturalistic in that the inquiry is taking place in real world settings, and the researcher is not suppose to attempt manipulation of the phenomena of interest (Patton, 2002; Peräkylä, 1997). The phenomena of interest is supposedly unfolding naturally in that it has no course established by and for the researcher in advance, like it would occur in a controlled setting (Patton, 2002).

Kirk and Miller (1986) is defining reliability as "the degree to which the finding is independent of accidental circumstances of the research" (quoted in Peräkylä, 1997 p.203), and the reliability of research are within ethnographic "whether or not (or under what conditions) the ethnographer would expect to obtain the same finding if he or she tried again in the same way" (quoted in Peräkylä, 1997 p.203). In this context Silverman (1993) argue that checking the reliability is related to the assurance of the quality of field notes and the guarantee of public access to the production process. Peräkylä (1997) is comparing this with tapes and transcripts within conversation analytic research, because these are "the 'raw material' comparable to ethnographers' field notes " (p.203). In relation to this study the raw material is the tapes that recorded the interviews with the students that made use of the weblogs, the transcribed notes of the interviews, and the content withdrawn from the weblogs under study.

Peräkylä (1997) emphasise that transcription is a skill that only can be acquired through training. It is advisable to include many aspects of vocal expression in the initial transcripts because at the time of transcribing the researcher does not know which of the details will turn about to be important. Special notations not used in the analysis can be left out after the analysis has been accomplished and the results are published (Peräkylä, 1997). In relation to this thesis the transcribing has mainly focused on the students opinions when it comes to use of the system, some intonations has also been included to make statements clear. Many of the gestures that are included in conversation analysis is left out, when it is the content in the weblogs that are the object of analysis regarding how the students interact.

Validity of research "concerns the interpretation of observations: whether or not the researcher is calling what is measured by the right name" (Peräkylä, 1997 p.207). Or as Remenyi et al. (2002) define the term "the degree to which what is observed or measured is the same as what was purported to be observed or measured" (p.291). The case in relation to this study is using a single research entity (one course), and in order to corroborate evidence there has been made use of multiple sources, so called triangulation (weblog content and interviews) in order to

make the findings more convincing. Remenyi et al. (2002) argues that multiple sources of evidence tend to help with the problem of constructing validity "because this provides several measures of the same phenomenon. The multiple nature of evidence […] also allows the researcher to attempt to find information convergence" (p.178).

The reliability and validity in relation to this thesis is evaluated in chapter 6.

5.4   Unit of Analysis

A case analysis is the organization of data by specific cases for in-depth study or comparison. Cases can involve individuals, groups, programs, organizations, or cultures to mention some. A case constitutes the unit of analysis. The chosen unit is generally determined during the design phase, and it becomes the basis for the sampling in qualitative inquiry. A case constitutes a detailed collection, organization, and analysis of the data, and in this way it represents a process. The analysis process results in a product → the case, therefore "the term case study can refer to either the process of analysis or the product of analysis, or both" (Patton, 2002 p.447). Yin (1994) gives a technical definition that he restates in two ways: "A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (p.13).,

and

"The case study inquiry copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result benefits from the prior development of theoretical propositions to guide data and analysis" (p.13).

Patton (2002) argues that there exists no agreed upon rule when it comes to sample size in qualitative inquiry, it depends on what you want to know, and the intention with the inquiry. In depth information from a small number of people can be of great value, especially in information rich cases, it all depends on what the researcher is looking for, how these findings will be used, and which resources, including time, is available for the study.

Data gathered in a case study consist of all the information existing regarding each case; interviews, observations, documents, impressions, statements, and contextual information

(Patton, 2002). The unit of analysis in this study started out to be all the students attending the graduate course, Contemporary and Historical Perspectives on Pedagogical Information Technology, and their published postings in their weblogs. In the beginning all the weblogs were monitored in order to see if the students would adapt to the use, but because of the time frame of this thesis there were a need to decrease the unit of analysis because the material within the weblogs were comprehensive.

After the interview process the unit of analysis were reduced to seven students and their weblogs. Five of them were male students, and two of them were female students, and their age ranged between 23 and 35 years.

Patton (2002) argues that it is not possible to find nothing when studying a case, at least not when it comes to qualitative inquiry – the case study is there. "It may not have led to new insights or confirmed one's predictions, but the description of that case at that time and that place is there. That is much more than nothing" (p.500). A qualitative interpretation involves the elucidation of meaning, and the analysis goes back and forth between data findings and the researchers perspective and understanding.

5.5 Data Sources

Records, documents, artefacts, archive, these are all objects that are described as material culture within anthropology, and they constitute a rich source of information. Using a combination of sources, observation, interviews and document analysis the researcher has the ability to validate cross check findings. Each type of source has strengths and weaknesses, and using a combination – so called triangulation – is suppose to increase the validity of the study (Patton, 2002).

The methodological strategy chosen in this relation is two pieced, and the aim for this strategy, is to increase the validity of the findings. The two methods used are survey research, in the form of personal interviews, and secondary research, in the form of content analysis of documents, in this relation represented by the weblogs.

5.5.1 The Interview Process

Patton (2002) says that interviews are accomplished to find out about the things that can not be directly observed; feelings, thoughts, and intentions. The purpose is to enter into other people's perspectives. "Qualitative interviewing begins with the assumption that the perspective of others is meaningful, knowable, and able to be made explicit" (p.341). An interviewer is faced with the challenge to make it possible for the respondent to bring the interviewer into their world, and the quality of the gathered information is dependent on the person asking the questions (Patton, 2002). Personal interviews provide for flexibility in the questioning process and greater control over the interview situation.

Franfort-Narcmias & Nachmias (2000) argues that the method also make it possible to collect supplementary information about the respondents, and spontaneous reactions can be recorded for use in the data analysis state. But, the flexibility advantage can also provide for the interviewers personal influence and bias, and the process is time-consuming.

There is usually a division between three different methods that define the structure of an interview, often referred to as structured-, semi-structured- or unstructured interviews. This characteristic may seem limitable, but a research project can consist of a mixture of two or more types (May, 1997). Frankfort-Nachmias & Nachmias use the description schedule-structured, nondirective, and focused interview regarding the same categorization (Frankfort-Nachmias & Nachmias, 2000). Patton (2002) uses somewhat the same division when he separate between three basic approaches to collect qualitative data through open-ended interviews; informal conversations, general interview guide, and standardized open-ended interviews. In this lies the involvement of different types of preparation, conceptualisation, and instrumentation, and each approach serves somewhat different purposes. The design differ in the extent to which interview questions are determined and standardized before the occurrence of the conversation (Patton, 2002).

The informal/unstructured interview relies on the spontaneous generation of questions that comes natural in a conversation. This is a situation that offers maximum flexibility to pursue information in the direction that appears within the conversation. Most questions will come naturally from the immediate context. Data gather in this process will be different with each respondent.

The general/semi-structured interview guide is a list of questions or issues that are to be explored during the interview. The guide sees to that the same line of inquiry is pursued with each respondent during the process. In this situation the interviewer has the possibility to build a conversation within a particular subject area, and questions can be asked spontaneously.

Standardized structured interviews are carefully arranged with the intention of taking the respondents through the same sequence and asking the same questions in every interview. Flexibility when it comes to thorough supplement is limited depending on the nature of the situation.

In relation to this study the aim was to use the interviews as a supplement to the content retrieved from the weblogs. The emphasis was the student's own experience related to the use of weblogs within an educational setting. In addition there is the possibility of comparing what they say with the actual content within the weblogs.

The chosen interview method was what is previously referred to as a general/semi structured interview guide (see appendix C for the interview guide). The questions asked where open ended because it is a method that requests freely, spontaneous answers, which means that the questions are not followed by any specified choice. The respondent's replies during the conversations were recorded in its full length.

The personal interviews where accomplished through face-to-face meetings, carried out in a meeting room at the Institute of Information Science, at the University of Bergen. Taking part in the interview process where voluntary, and the conversations were taking place at the end of the semester shortly before their examination in relation to the course of study.

Out of a total of 22 participants taking the course, seven students attended in the conversations. Five of the interviews where separate individual discourses, and one where a group conversation with two attending students. Each conversation lasted between forty and seventy minutes and they were recorded on a Mini Disc with the use of a Mini Disc Player and a microphone. After the interview process was completed, each conversation was transcribed (the transcribe process is discussed in the following chapter).

5.5.2 Analysing the Weblogs

Frankfort-Nachmias & Nachmias (2000) says that secondary data analysis has a long tradition within the social sciences, and that there is three basic factors that often encourage the use of this type of analysis; conceptual substantive reasons, methodological reasons, and costs. Conceptual substantive reason can be that secondary data may be the only available source for study, it can also be useful in comparative studies, and on more contemporary issues, annexating secondary data makes it possible to search through a wider range of materials. Methodological reasons may be the possibility for replication, and also by using secondary data the sample size, its representativeness, and number of observations, can be increased. Considering the cost factor, it is much less expensive to use existing data than spend the time it takes to collect new material (Frankfort-Nachmias & Nachmias, 2000). Secondary data analysis is not only talked about in positive terms. Remenyi et al. (2002) says that one should always remember that documents were written for other reasons than research, and that this may result in that they do not accurately reflect the situation. Another problem is to trust the validity of a document in the danger of building on findings that are not veracious.

Silverman (1997) argues that it is important to be clear about what documents can be used for. "They are 'social facts' in that they are produced, shared and used in socially organized ways" (p.47). They construct representations with their own conventions, and document sources should not be used as surrogates for other types of data. Documents construct their own sense of reality, and it is important to see them in relation with their authorship and readership (Silverman, 1997).

Documents include history, declarations, statutes, and secondary sources involving peoples narratives regarding incidents or periods they have been involved in (Remenyi et al., 2002). Many definitions when it comes to document research are somewhat narrow, but May (1997) quotes a broader explanation given by Scott (1990), which is suitable in terms of weblogs:

"A documents in its most general sense is a written text… Writing is making of symbols representing words, and involves the use of a pen, pencil, printing machine or other tool for inscribing the message on paper, parchment or some other material medium… Similarly, the invention of magnetic and electronic means of storing and displaying text should encourage us to regard "files" and "documents" contained in computers and word processors as true documents. From this point of view, therefore, documents may be regarded as physically embodied texts, where the containments of the texts is the primary purpose of the physical medium" (quoted in May, 1997 p.160).

All the weblogs that has been established in relation to the course of analysis has been monitored throughout the semester. Although all the content in the weblogs has been seen through, the emphasis will mainly be on the weblogs that belong to the students being interviewed in relation to this thesis. The reason for this is that the weblogs in conjunction with the interviews increases the possibility of being able to reveal something regarding the students user patterns and choices made in relation to this use.

The weblogs were monitored on a weekly basis from the students started to use them in February, throughout the semester, which terminated in May. The content, the hypertext linkages, and the comments were looked at in all the individual blogs, including a group blog. The main focus resulted in the 7 weblogs belonging to the students that participated in the interview process. These blogs where thoroughly gone through in order to get an overview over the students use throughout the semester.

There could be different opinions when it comes to describing the weblogs as documents for the analysis when they also can be viewed as conversations between the participating student, and hence fall under the category of discursion analysis. In this relation they are seen as documents founded on the somewhat broader definition given by Scott (1990) previously.

5.6   Summarizing the Methodology Process

The methodology process related to this study can be summarized according to figure 28.

Data Gathering Techniques	Description
Observation	Observations of the virtual environment, the individual weblogs (one group blog) development from January including May.
Interviews	Interviews with the use of an interview guide, 5 individual conversations and one group interview
Transcribe the Interviews	Transcribe the interviews according to pre-defined categories
Document Analysis	The 7 weblogs belonging to the interviewed students, content analysis regarding their use throughout the semester.

Figure 28: Overview related to the methodology process regarding this thesis

5.7   Summary

This chapter has been introducing the methodology chosen in relation to this thesis, and the themes that has been discussed in this relation are the following:

- Introducing the research focus in relation to this study

- Introducing the research questions relevant to this thesis

- Choice of research methodology

- Reliability and Validity

- Unit of analysis

- Data sources used in relation to this study
    o The interview process
    o Analysing the weblogs

- A figure that summarize the methodology process

The next chapter gives an introduction to the organised material in relation to this study, starting with the interviews and the weblogs.

6. Analysis

6.1 Introduction

The previous chapter described the methodology that was chosen in relation to this study. The process involves the reduction of the raw information looking for significance and significant patterns, and constructing a framework for communicating the essence found within the data. This chapter will follow this process of analysing the material, starting with an organisation of the data, which consist of the content in the weblogs and the conversations accomplished through the interviews. Each of the seven interviewed students and their weblogs will be introduced. Ending this chapter is a summary and the results of the student's use of the weblogs.

6.2 Organising the Weblogs

The weblogs were monitored on a weekly basis from the students started to use them in February, throughout the semester, which terminated in May. The content, the hypertext linkages, and the comments were looked at in all the individual blogs, and also the group blog were under observation. The main focus resulted in the 7 weblogs belonging to students that had participated in the interview process. These blogs where thoroughly gone through in order to get an overview over the students use throughout the semester.

In trying to capture the essence of the information in the weblogs the main patterns has been drawn out in order to clarify the use of each interviewed individual maintaining these sites. A summery of each weblog containing original postings, which is the foundation for the material being introduced in the next section, is described in appendix D.

6.3 Transcribe the Interviews

After the conversations where accomplished, the interview questions were grouped into subjects in order to transcribe the interview process with each student. The conversations were written down according to theses categorisations, which are listed in figure 29.

Category	Characterization
Background Information	Information regarding age, education, etc.
User Patterns	How often the weblog is updated, why it is updated (voluntary or expected use)
Content	What content is the student writing about in the weblog, and why
Relationships	Relationships to other students weblogs, if they are read, referred to or commented in
Linking	What information are the student creating hypertext links to, and why (other sites, other weblogs)
Community/Culture	Is there any sense of belonging to a community within this virtual environment
Experience	The weblog as a tool, impressions and thoughts around its use

Figure 29: Interviews divided into categories for the transcribe process

The transcribe process is of use when interviews are part of the data material because statements become more visible and can easier be referred to. These categories where helpful in ordering the information subsequently because the interviews took form as conversations. Each interview degenerated differently, and listening to the conversations through the minidisk afterwards, without categorising the questions into more abstract groups, would have made the transcribe process difficult.

It is the informant's experience regarding the use of the weblogs that is tried captured during the interview. Because of this few of the other aspects, which can be drawn from this process is taken into consideration (coughing, tone of voice, length of thinking pauses etc) in this transcribe process.

6.4   Introducing the Participant and their Weblogs

The following section will give a summary of each of the seven weblogs with the student's own experience of the use through the semester. The summaries are founded on the content in the weblogs, and the conversations related to the interview process. Seeing that the interviews were accomplished in Norwegian every quotation use is translated to English. The original quotation can be seen in appendix E. This use of translations will be further discussed under the evaluation of the study in section 7.5. The student's names are fictitious.

6.4.1 Weblog Use – Jonas

The interview subject is a male student at 25 years of age. His educational history consists of subjects taken within literature, history, psychology, and information science. All the courses were completed at the University of Bergen.

The student starts to write in the beginning of February after the introduction of the weblogs in relation to the course. The last published content is written in April, and the weblog contain an average of five postings during the three months that the student is active within this environment. An overview over the frequency in relation to Jonas use of the blog is shown in fig.30
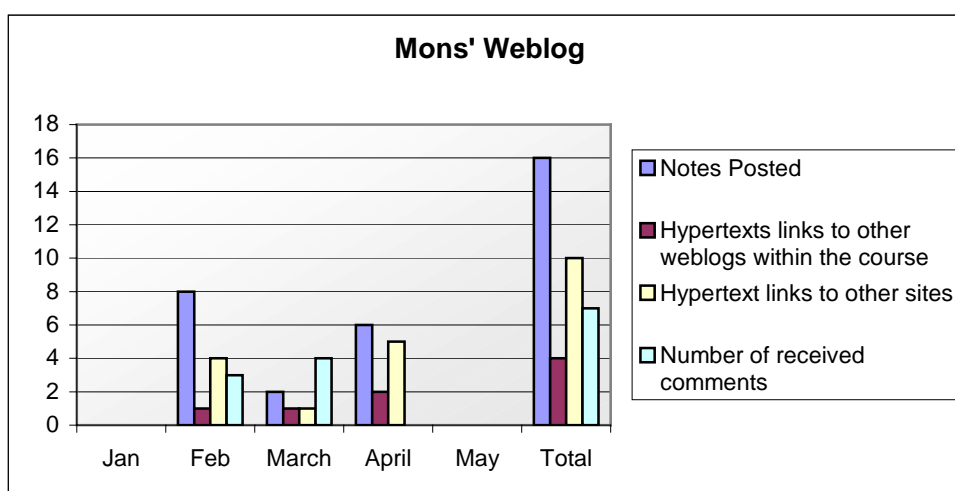
Figure 30: Overview related to Jonas' use of the weblog

The Weblog as a Tool

The student found the weblog easy to use as a tool. The participants in the course collaborated in getting to know the features in the system, "someone find something and give the others tips regarding how to do things". The threshold when it came to start using the blog was not difficult to overcome. The problem was more related to what the student should write about, scientific subjects or occurrences from his personal life. He says that the content for the most part dealt with happenings related to the course, this choice, he says, made it easier to publish posts in the blog. "It doesn't bother me that others read these kind of things".

Content and Updates

The weblog is starting out to be used in relation to the scientific themes concerning the course (see appendix D for an overview of the original content in this weblog). The student is sharing thoughts and experiences through the content, and the writing seems to take the collaborative aspects into consideration. The language is extroverted; others are encouraged to participate with their opinions, and subjects regarding the curriculum are talked about and their meanings are questioned. The same apply according to the use of the system; technical matters according to learning the features in the weblog are described. At the end of the semester the tone is becoming more social, revealing information about family and matters of the everyday. There are no postings made during the end of the semester (fig.30).

The student says that he wanted the weblog to be his "personal homepage", with links to material of personal interest, like music. When he has posted content with a scientific relevance, it is information regarding things that he has spent much time reflecting over. "I'm not in a research mode when I write the 'entry', than I already know what to write about".

The student is describing his use of the weblog as enjoyable. He says that the updates in the weblog were done in relation to the updates in his group's weblog; if he wrote in that, he also wrote in his own. The group-blog was used as a means for communication between the group members, and mostly in connection to written assignments given in relation to the course.

Reading Other Weblogs and the Use of Comments

Where the editor has invited others to take part with their opinions, there are usually made a comment or two relevant to the questions asked, but the response is moderate compared to the published posts (fig.30).

The student says he read one weblog on a regular basis, other weblogs that were read belonged to people that he has had a personal relation to. Other blogs read were on a more 'drop in' basis. The student says that he has commented in his fellow student's weblogs. "To show them that I've been visiting their site". When asked what he comments on he says that it is related to what he thinks of the blogs appearance, or if he thinks that the student has written something funny. He does not think he has been commenting in any posts that have been published with a scientific content. The only weblog commented in that is not related to any of the course participant's belong to Walker, the person who introduced the use of weblogs in relation to the course. The student does, however, see her as one of the course members. "But she sort of belong to the course".

Hypertext Links

Although the writing is turned outwards, and the student is encouraging collaboration, there is not any extensive use of hypertext links to information in other student's weblogs (fig.30). Altogether the editor is not making use of hypertext links to the extent that is common within a weblogging network at the Internet, where the use of links to information outside a particular site, is seen as one of the primary intentions with the blog – giving the reader a medium to extend his or hers area of knowledge.

The student says he has created hypertext links to members of his group and to other students he knows personally that is attending the course. He wanted to use the link function to broaden his knowledge area, putting the written text into a bigger context, but he sees this only as relevant connected to scientific writing, not the personal publishing.

Collaboration

When asked about why he chose to write in the weblog he answered that it was done on a voluntary basis, but that he also felt that he *should* contribute to the environment. The problem was that too few students were engaged in the use, "so I chose not to use it either". To few students read the weblogs, he says, and he felt that when he did not receive any response on his posts there were not any reasons to continue the writing. "It isn't too much fun to write when one doesn't receive any answers". Most of the communication that were done without physical presence went through email, and this was also the case when the student needed to contact the lecturer.

The student does not feel that he belongs to a virtual community through the use of the weblog. "Through the blogging in this course we haven't created anything". He sees it as a possibility in the future if the weblogs keep on existing when new students attend the course, then they can use the previous weblogs and build on the knowledge accessible through these. The student thinks that there is a need to do something different in being able to get the students to use the system. He says "the scientific information in the course does not hold the same motivating factor as reaching the end-of-term, getting the final grade".

Jonas' Personal Experience

Summarizing his experience Jonas says that is has been somewhat positive, but he thinks the system is more similar to the ordinary homepage than a collaborative tool. He says he is a bit disappointed because the environment has not shown to be what they were pictured it would be. Some of the students considered the weblog to be important, that they were using it to gain knowledge, he says, and in the beginning there were quite a few that made use of the tool. But when these students did not receive any response from the other participants it all ran out in the sand. "In that respect I'm a bit disappointed, it would have been nice to get some more answers in relation to my questions". He says that there are few students that have been using the blog in relation to the scientific themes, and that the collaborating factors when it came to discussing scientific subject were non-appearing. "It is nice to put a text in context, a good way to become absorbed in the substance, but it takes time to find things. One needs to have an overview in being able to find the things one need".

He sees the weblog as a proper tool to use when giving feedback, although the writing is visible for anyone to see. He feels that this publicity may cause problems if the writing is in negative terms related to the course or towards the responsible for the lectures. The student see this "straddling the boundaries" between the private and the public as an element of risk if the writing does not keep a standard of objectivity, but if it does, it is a good way to receive feedback.

The student thinks one of the problems is that the weblog may become too personal, and that it is less likely that this kind of content will receive any response. He says that where he has received answers from other students, the information published has been scientific. The students attending the course did discuss to what extent the content should be personal, he says, and the opinions have been fluctuating.

When asked if he considered himself to be 'a blogger' the student answered; "A wannabe blogger… No, I'm not a blogger, I'm a guy who blogs a bit. The interest is present. Maybe if a felt it had a more important part when studying, but…"

He thinks that he will continue to use the weblog after the course has ended, at least if other's do the same, "especially one". The point is to have someone he can converse with, keep discussions. He also sees the blog as a nice opportunity for other's to be able to make contact with him, "but I can in addition make a homepage, as I've seen other students has done".

The activities in the weblog are picking up again in the middle of august. At this point the course has ended, and the use of the weblog is done on a personal basis. The editor writes that from now, the weblog will mainly be used as a personal page "where I write what I want, when I want". This is the last post published in this weblog. Jonas' experience and use of the system is summarized in fig.31.

Content	- Scientific in the beginning, personal at the end - Extroverted writing
Updates	- When group-blog were updated, the personal blog were updated - Weekly in the beginning
Use of comments	- Commenting on appearance and humorous content
Receiving comments	- In relation to scientific content
Use of hypertext links	- Links to group members - In order to put content in a bigger context
Collaboration	- Voluntary use, wanted to contribute to the environment - Do not feel he belongs to a virtual community - Reading weblogs belonging to others he has a personal relation to, and one are read frequently
Personal experience	- Enjoyable but somewhat disappointing - Few students were engaged in the use - Not fun to write when not receiving comments
Weblog as a tool	- Easy to use
Scientific profit	- No, to few students has been contributing in the environment
Continue use	- If others continue to use their weblogs - The blog is not active today

Figure 31: Overview over Jonas' experience and use of the system

6.4.2 Weblog Use – Trine

The interview subject is a female student at 35 years of age. Her educational history consists of subjects taken within politics, media, TV production, psychology, and information science. All the courses were completed at the University of Bergen.

The first post written in this weblog is in the beginning of February, and the last published post is written in May. The weblog contain an average of four postings during the four months that the student is active within this environment. An overview over the frequency in relation to Trine's use of the blog is shown in fig.32
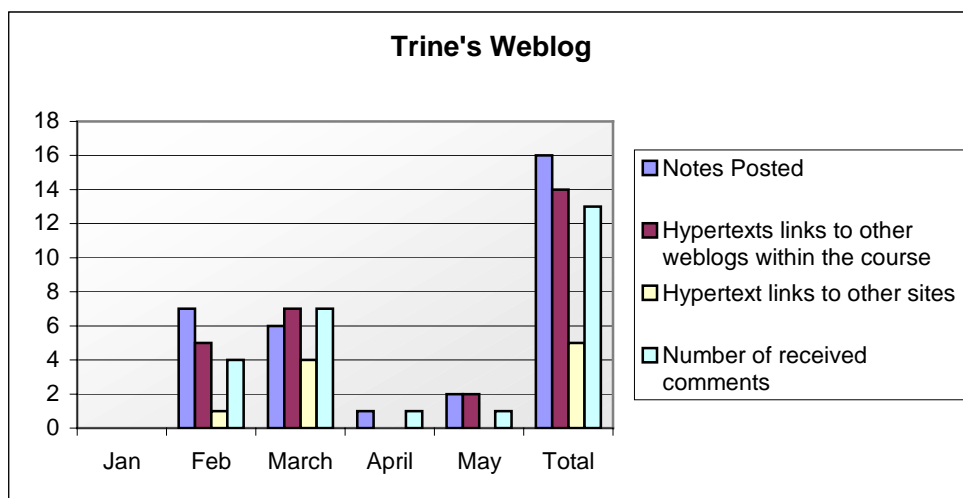
Figure 32: Overview related to Trine's use of the weblog

The Weblog as a Tool

The student did not find the tool difficult to work with, she said that the difficulties was related to the newness of the working method, but starting to use the system was funny even though the choice of genre was hard to find, "how personal or scientific one should be". The student says that she never overcame the personal blocking, "I don't usually unfold my personal life on the Internet". She chose to use the blog in relation to the scientific themes.

Content and Updates

This weblog is mainly used in relation to scientific subjects relevant to the course of study. The student is writing about articles and concepts that get down to theories relevant to the curriculum (see appendix D for an overview of the original content in this weblog). When the content does not deal with any of the things mentioned above, the main emphasis is with regard to technical problems that come into being when using the weblogging system.

The writing is extroverted, which means that the student is turning towards an audience. The content is written as though it would help others that are struggling with the same problems as the editor, indicating that the student has a feeling of belonging to a greater whole. There are several places made hypertext links that are referring to written reports, in relation to the curriculum, published in the group weblog.

The weblog was usually updated on a weekly basis, at least in the beginning (fig.32), if the student's group-blog was updated; she also updated her personal site, often with a reference to the posting made in the group-blog. The group-blog, she says, were mainly used in connection to the groups presentations in the course and their written assignments, other things related to the course, like how to use the weblog system, were only talked about in her personal blog. She says that the content in the posts may have been slightly different if she had made connections to other weblogs outside her study. If she would have done so than she may have written about her hobbies and interests, her work as waitress in a restaurant, food and wine, and those kinds of things. "But that would be up to me, and I haven't made that leap".

The group-blog that this student is editing, in addition to her own, is comprehensive, containing an average of 7 published postings each month from February including May. Many of these are long reports from articles or books in relation to the curriculum. The group has chosen to publish these résumés in its full length instead of using the 'Extended Entry' feature in the system. This feature is supposed to be used so that the content appearing at the main page is short and perspicuous. Long, endless reports may decrease the interest to the content.

The weblog is less active in the last two months of the semester, and the student is implying that this is because of work with the mandatory assignments. The same happened in the last months of the weblog previously described (see fig.30), and in the group-blog this student edits.

Reading Other Weblogs and the Use of Comments

Comments made to the published postings are received when the content is dealing with technical problems, problems that are easy to respond to. Some of the published information are extensive in explaining theories and the meaning of concepts, and this may be the reason why there are not received much response in relation to these postings. This indication is made on behalf of the same observation in regard to the group-blog where the postings are mainly circumstantial reports with few comments.

The student says she has commented in other weblogs if the material is well written, or in the form of questions if the information has been unclear. She says that there has not been any discussion that has been in progress over a longer period of time, "but than again, there aren't that many to discuss with". The student has received comments from others attending the course, but the respondents are always the same 2-3 persons. She has read other blogs not related to the study, these weblogs belong to Walker and her class. She says that she has observed that they use the blogs more frequent because they are expected to do so, "this is evident in our environment, there are no requirement related to the students use, and hence they aren't used".

The student has been checking the other weblogs on a frequent basis throughout the semester. She says that she has been observing what the other students has not been doing; "no activity today either, well, well". If the group had trouble understanding articles they have been reading other blogs hoping to reach some understanding, but found nothing, she says, and it than became easier to send an email to the lecturer, or talk with some of the other students attending the course. One of the weblogs the student has read regularly is a person she has had little personal contact with, "I read the blog because his writing is interesting". Because of this she has started to talk to him in person, "the blog is the reason for me getting to know him".

Hypertext Links

This student is utilizing a frequent use of hypertext links to other weblogs in relation to the course, though it seems, as these weblogs are restricted to the other two members within her group. There are less hypertext links created to other sites within the written information, and no hypertext links are made in relation to other student's assignments or discussions in the course (fig.32). Although she is not linking to many other weblogs, it may seem as though she is reading them ("looking forward to read more from you all").

The student makes use of the hypertext links when she is putting her writing in to context. She says that the use of links is because she wants to document her writing. She links to other websites, other weblogs and to her group-blog when referencing work done at this site. She also makes use of the hypertext links in other student's weblogs, "it is interesting. I've found some in Jill's (Walker) blog, private things, and I've found some thing related to design of websites".

Collaboration

The weblog was updated on a voluntary basis, and the student says that she found using the tool rather enjoyable. "I'm not going to take my mouth full and say that I had anything to contribute with, but I made my reflections over things I've read and made some tables and summaries from this, hoping that someone would comment on it, give me feedback. Sometimes it worked, but usually it didn't. It worked within our group, and towards one or two other bloggers. It was next to nothing".

The student does not feel that she has become part of a larger virtual community through the use of the weblog, only related to 3-4 other students that have been blogging on a regular basis. She would not call herself a blogger, "no, I don't feel I have the right to do that, but I've could have been one because. I haven't fully taken advantage of the possibilities that the system offer, I've just used it in relation to the course and haven't 'gone out' beyond this environment".

Trine's Personal Experience

Summarizing her experience with the weblog Trine says that she has had a taste of what it can create and what it can involve, but she does not think they have succeeded with their use since so few students have been utilizing the system. "I have at least tried to contribute. The possibilities are present". She says that she likes the weblog as a tool, "I think it is a great idea! Every student at the University should have their own weblog". She feels she has some scientific gain from the use in relation to her group, and 2 other regular users. The student also appreciates the training when it comes to expressing thoughts in writing, "you get used to formulating through your writing, it helps". She says that you do not write anything before you have thought it trough a couple of times in advance. The student refers to the work done in the group-blog where several summaries were written, "that was amusing, then we could go back an see what we had thought at that time".

The student thinks other students have learned more from her writing than she has learned from them, "we have made summaries, winded up threads between various authors. Other has made translations of articles from English to Norwegian from an original of 7 pages to a summary of 5. Not good enough". She feels that herself, her group, and maybe 2 –3 other students has contributed a great deal to the community, "it could have been much better if others had made use of it to the same extent. It saves time, getting together in groups takes a lot of time". The student says that if she had known how badly the system would work she would not have been that much involved in the use of it. She thinks that it has potential but that

the use needs to be mandatory for the students in order for it to work. The response on the question regarding if she will use the weblog after the course is ended is that she has not considered this option. She thinks it can be useful in relation to the writing of a master thesis, "then you're all alone with your own thoughts, and maybe you'll receive some response from others interested in the same things as you are". Trine's experience and use is summarized in fig.33

Weblog as a tool	- Easy to use - New way to work, takes a little to get used to
Content	- Summary from articles and theories in relation to curricula - Technical problems with the system - Extroverted writing
Updates	- When group-blog were updated, the personal blog were updated - Weekly in the beginning
Use of comments	- Commenting on well written content - When content was unclear (in form of questions)
Receiving comments	- Mostly in relation to content related to technical problems
Use of hypertext links	- Links to other weblogs, mainly group members - In order to put text in context - Made use of links in other weblogs
Collaboration	- Voluntary use - Collaboration to 3-4 others, not to a larger virtual community - Read weblogs belonging to other participants
Personal experience	- Few student's have been utilizing the system - Training in expressing thoughts through writing - Others has learned more from her blog then she from others - The system has potential, needs to be mandatory
Scientific profit	- To some extent through the writing - And in relation to the other active participants
Continue use	- Not considered it, but thinks it can be useful in relation to thesis - The blog is not active today

Figure 33: Overview over Trine's experience and use of the system

6.4.3 Weblog Use – Ivar

The interview subject is a male student at 26 years of age. His educational history consist of subjects taken within social anthropology, sociology, politics, psychology, and information science all courses completed at the University of Bergen, in addition he has attended courses within media taken at another private institution.

The first published post is written at the end of January, and the weblog is still going strong today, keeping up a rather high frequency in connection to published content. The weblog contain an average of twelve postings during the semester, starting in January, and terminating in May. An overview over the frequency in relation to Ivar's use of the blog through this time is shown in fig.34
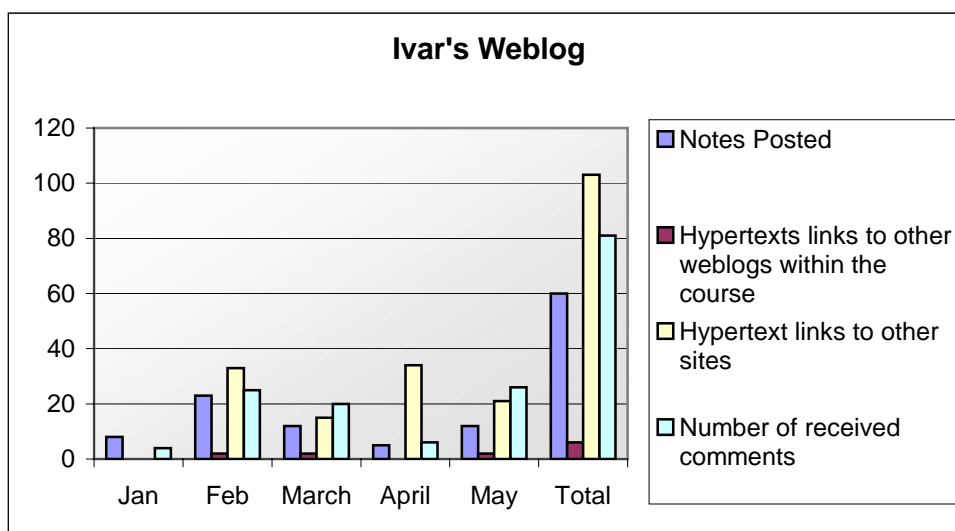
Figure 34: Overview related to Ivar's use of the weblog

The Weblog as a Tool

This student did not find the weblog as a tool difficult to work with, he emphasise that this is because they did not have to install the system themselves, just arrange the design, make categories and such like. He did neither find it difficult to start to write within this environment because he has written text related to the Internet before; in forums, gestbooks, homepages, and through chat, "it wasn't an unfamiliar thing to do". The postings in relevance to the technical use of the weblog are implying that the student has a personal interest in the use of computers and the Internet. The published postings within the system, and the extensive use of hypertext links to other sites, are indicating that there is some time consumed in the virtual space.

Content and Updates

This weblog is one of the most active in the system. The editor is updating the information on a weekly, and sometimes, daily basis. It differs somewhat from the two previous described weblogs, in that the content in one post is more a mixture of scientific and social information (see appendix D for an overview of the original content in this weblog). The student is often writing on a more abstract level and he talks about the big patterns within the course without going into specific articles or books, which differs from previous described weblog. The student is also relating these themes to other areas, such as how the media influence our knowledge, and other articles written outside the research institution.

The writer is extroverted in his manner of speaking, and the use of questions within the postings directed towards the writer, is one example of this. It may seem as though the student has a conscientious relationship when it comes to updating the weblog on a regular basis, but if this conscience is directed towards the reader or himself is difficult to assert.

The weblog has been updated on a frequent basis when the student wishes to publish posts, when he thinks it's been to long since his last postings or when he feels for it. "There isn't much pressure related to frequent postings. There are many students that doesn't publish much, or anything at all". In the beginning the content was related to the seminars, but when there has not been any, the writing has been concentrated around other things. The student has written about scientific themes on a more abstract level, things not directly directed towards the course. He says that it could have been more about the course but that there have not been many debates in that relation within the environment.

The student did not want to publish content related to his assignment on the way, if he were not satisfied with his writing he did not want to make it public. He says that he does not know whether the external examiner is monitoring the weblogs, "I don't think so, but going through the process, poorly writing is revealed. It is a public forum, I don't use my name, only my student number". He says that the postings also deal with personal things, "things that doesn't belong there".

Reading Other Weblogs and the Use of Comments

This weblog is getting a lot of response on the content, and the student is often replying on these comments, this is why the total number of comments is so high (fig.34). The student's replies provide for a more extensive use of the comment field within the weblogs, which in turn provide for longer discussions between the editor and the respondents.

He has been reading the other students weblogs trying to keep up with new postings along the way; "I keep myself posted, but it hasn't been difficult to keep up, there isn't much to read, some haven't published anything for weeks, probably due to the written assignment". He implies that although he is working on the same assignment, he takes the time to update his blog, "but I can understand that this happens, it takes time to write a contribution".

The student is commenting in other weblogs because he sees it as a way to express himself, things he wants to discuss. He sees this process in resemblance to the process of writing on your own, "it may even be better to leave comments. You have another position". He also leaves comments in the weblogs belonging to the course of Walker, looks at the updated blogrolls at this site, and reads some of them in order to keep an overview.

Hypertext Links

The student has links to other students attending the course on his front page, including the course blog, the course chat (that never has been used), "I knew that the chance of two students entering the chat at the same time… It weren't going to happen", and representations to what others have done in trying to systemize their work, something that has not been followed up because it would require searching the weblogs thoroughly. The created links are related to the content written about, referencing some information, "I don't use that much hypertext links", and he follows links in other blogs, "that is almost the most enjoyable part, following the links when someone has written about something, then these leads to amusing sites".

There is little use of hypertext links in relation to other weblogs within the course, but when it is created, the student is discussing the content the link refers to, it is not just mentioned as a short reference. When it comes to the creation of hypertext links in relation to the information written about, the use is extensive compared to previous described weblogs.

Collaboration

The student says that something has come into being using the weblog, but he is not certain about if he would call it a culture, "it's difficult to say, it is something though. Some has written more than others, and I have been writing in some more than others, about three weblogs is visited on a frequent basis". He has been commenting in posts to please the editor of the site so that they may find it easier to write something in a later moment in time. With this he has tried to encourage other students to blog.

Ivar's Personal Experience

Summarizing his experience Ivar says that the weblog has made him write, put words on thoughts, "it's easier to write it down and than have another look later and make things clearer. Writing makes you think in a somewhat different way, it's to some extent experimental writing. One may learn from this along the way". He does not feel that he has been taking part in a learning community with an emphasis on learning from each other. But he thinks that he has gotten some profit from the use, "it was interesting to be able to express yourself in such a way, an easy way being able to communicate with others".

The student says that he does not know if he will continue to use the blog after the course has ended because the weblogs are established in that relation, "you need an audience to relate to, so after the course some of the intention with the use disappears".

The weblog is to date still in use, and the activity are on the whole keeping up with previous patterns (fig.34) but now with an emphasis on information belonging to the social sphere. One of the first posts written when the activity is picking up again in august is summarizing the last semester, reflecting over decisions made in relation to the course. Ivar's experience and use is summarized in fig.35

Weblog as a tool	- Easy to use - User familiar with writing in this kind of public sphere
Content	- Mixture of personal and scientific information - Extroverted writing
Updates	- Weekly, sometimes daily basis
Use of comments	- Commenting to express thoughts - Encourage the weblog editor
Receiving comments	- Extensive response on written content
Use of hypertext links	- Links to other weblogs on front page - Little use of links to other weblogs in text - Extensive use in relation to written content - Follow links in other weblogs
Collaboration	- To some of the other users - Not sure he would call it a culture - Does not think this is a community were they have learned through collaboration - Read all the other weblogs
Personal experience	- The blog made him write - Put words on thoughts - Communicate with others
Scientific profit	- Some profit from the use - Interesting way to express himself - Interesting way to communicate with others
Continue use	- Is not sure that the use will continue - The blog is still active today

Figure 35: Overview over Ivar's experience and use of the system

6.4.4 Weblog Use – Per

The interview subject is a male student at 23 years of age. His educational history consists of subjects taken within media, psychology, and information science and all the courses were completed at the University of Bergen.

The first post written in this weblog is at the end of January, and the last published post is written in March. The weblog contain an average of three postings during the three months that the student is active within this environment. An overview over the frequency in relation to Per's use of the blog is shown in fig.36
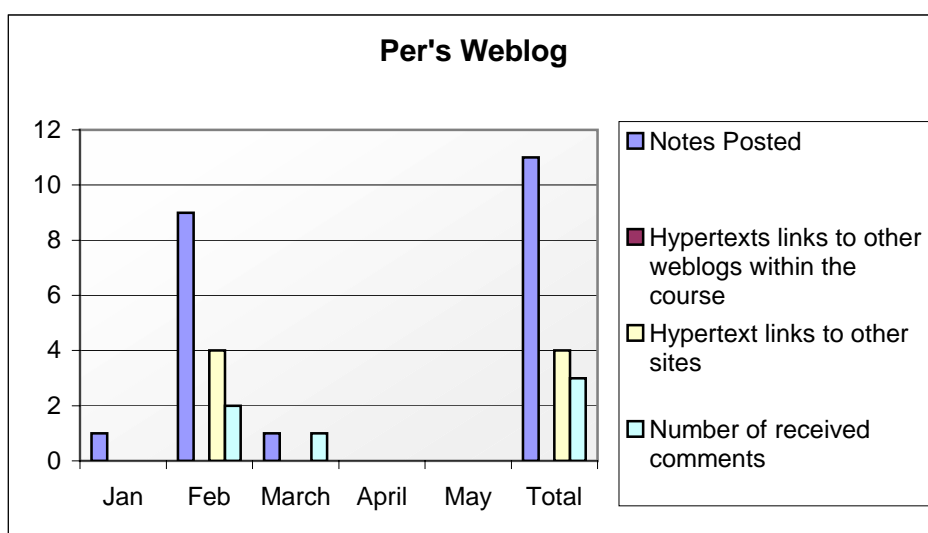
Figure 36: Overview related to Per's use of the weblog

The Weblog as a Tool

The student did not find the weblogging tool difficult to use, he says that this was the most fun part, fiddle about with the design and features in the blog. "But I don't think we really tried everything we were suppose to; ping, URL. I tried at first but gave it up". He does not think that there were many students that made use of the tool as suggested by the lecturer, he says, "I think everybody needs to participate in order to make this work. They haven't".

Content and Updates

The weblog start out to be used in relation to the course by talking about the first seminar, writing a short summary in this relation, and in various places mentioning that there will be published more posts. The student is turning outwards, using a language that is implying that others are reading the material. The content is indicating that the student is trying to use the weblog as a resource in the context of the course, but the tone of voice is getting more

humorous throughout the month, resulting in received comments that is keeping up with this use of language (see appendix D for an overview of the original content in this weblog).

Per is early on mentioning that he does not think the weblog will be very useful, which may give the answer to the sudden stop in publishing the content, there is not written anything after the last published post in March (fig.36).

The student says that he thought the course was going to be different than it was and found it boring in the beginning. Because of that he did not read much of the curricula either. At the end when getting closer to the examination date the reading picked up and he says, "if I had the insight that I have now, than I think I would have used it more in the beginning". He says that most of the communication with other students and the lecturer was accomplished through email.

Reading Other Weblogs and the Use of Comments

The student says that he has read some of the other student's weblogs, on a superficial level. Because there was so much to do in another course he attended, there was never time enough to go thoroughly into what others were writing about. He mentions the group-blog and says that the problem with this one is that it was only the group members that have been commenting on that site, making it somewhat exclusive. He thinks that the group-blog is very good. The student has been reading one weblog regularly because he were encourage to do so when he actually asked a question via email, because of this that blog were visited quite frequently and he found it very useful. "But then again, I didn't feel competent enough when she started to ask me questions, so I only retrieved information".

The received comments are not made in relation to any of the more 'serious' published postings relevant to the course. It seems like people belonging to the same group as the editor write the comments given. This may see to that other students outside this circle find the information and comments somewhat exclusive.

The student says that he has made comments in other student's weblogs, but that these were foolish comments, and had nothing to do with the scientific content. He found it difficult to give answers on questions given in the postings because he found this threshold somewhat high. He felt that he did not hold enough knowledge to comment on students writing. "It was easier to just ask them questions". The student says that when he has had the need for help the most natural thing to do is contact someone, and talk to them in person rather than take the detour through the weblog.

Hypertext Links

There are not made any hypertext links to other weblogs within the written posts, or referred to work or discussion encouraged by other participants. The use of hypertext links in relation to the written content is also next to nothing (fig.36).

The few hypertext links that has been created is in relation to presentations given at the seminar, presentations given by his group and by other students in relation to the course. He has in addition made links to other weblogs at the front-page of his site. The student has not made any use of hypertext links that has been created in other weblogs.

Collaboration

The student says that he started to use the weblog because he felt that it was expected of him to do so. Because so few students were active users within the environment, he says, some of the reasons for using the system (collaboration) disappeared. He also utilized that in order to contribute in the environment it is essential to be updated on the curriculum. "I never really got started on my reading until at the end of the semester. Then I could have used the blog, answered questions. In the beginning I only had trite things to write about". The reason the student gives for why he never picked the writing up again was the reading for the examination at the end of the semester.

When talking about the relations made within the weblog environment he only refer to the only group-blog that was created within the course. "But that were only reciprocally among that group, outermost few has been commenting anything within that weblog".

Per's Personal Experience

Per summarizes his experience as not useful, and he would definitive not call himself a blogger. He says, though, that he can see why using the weblogging tool could have been beneficial during the course. He thinks the solution to the problem, getting all the students involved, would be to make the use of the system compulsory. "I think that would have done us good, we need a kick in the butt!" The student says that because all the students attending the course meets daily at the University it is easier to reach out and make contact in person, or approach someone by sending an email. Compared with this the use of the weblog became somewhat cumbersome.

The student mentioned that there should have been some follow-up related to the use of the weblog during the semester. He says that the activity in the course blog all in all was too low, and that there should have been more suggestions given by lecturer related to sites that they could visit to find interesting scientific themes.

He says that he may use the blog when the course has ended because he than has the possibility to write precisely what he want, "although it wasn't mandatory to use it". He blames the amount of work this semester as the reason for not using the tool much. "I didn't want to write about an article just so that others could take advantage of it". Per's experience and use of the system is summarized in fig.37

Weblog as a tool	- Easy to use
Content	- Related to the course in the beginning - Humorous at the end - Extroverted writing
Updates	- One in January, most in February, one in March
Use of comments	- Humorous comments, nothing serious
Receiving comments	- Humorous comments not related to scientific posts
Use of hypertext links	- Links to other weblogs on front page - No links to other weblogs in text - Some links related to written text (presentations) - Not made use of links in other weblogs
Collaboration	- Felt it were expected of him to use the weblog - Easier to talk to other participants in person - Read some of the other weblogs, one frequently
Personal experience	- Not useful - Not read enough to contribute in the environment - System use should be mandatory - Should be some follow-up f the use during the semester
Scientific profit	- No, but could have had if more students had used the blog
Continue use	- It depends, is not motivated to use it - The blog is not active today

Figure 37: Overview over Per's experience and use of the system

6.4.5 Weblog Use – Frank

The interview subject is a male student at 27 years of age. His educational history consists of subjects taken within English, statistics, and information science. All the courses were completed at the University of Bergen.

The student starts to write in the beginning of February after the introduction of the weblogs in relation to the course. The last published content is also written in February, and the weblog contain an average of five postings during the three months that the student is active within this environment. An overview over the frequency in relation to Frank's use of the blog is shown in fig.38
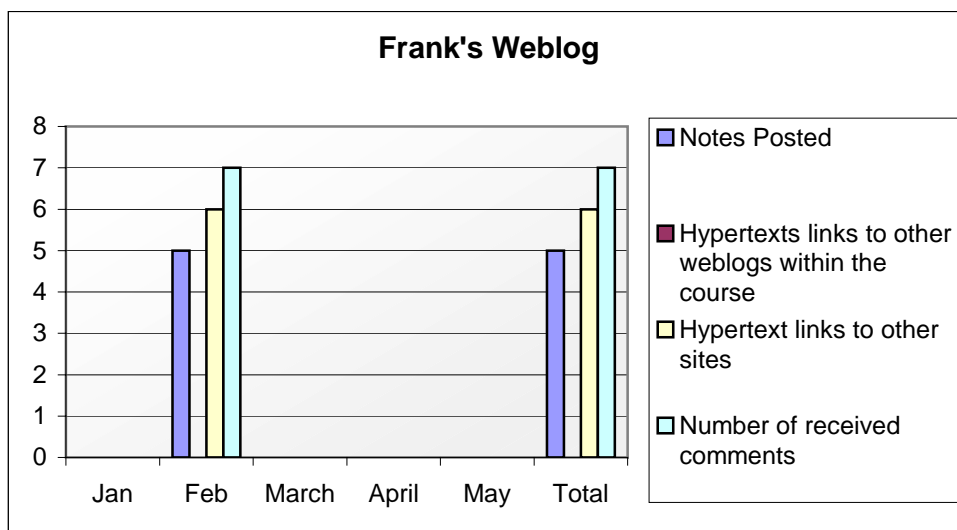
Figure 38: Overview related to Frank's use of the weblog

The Weblog as a Tool

The student did not find the weblogging system difficult to use, he says that although it was a new system to work with it was also sort of familiar. "It worked well in the beginning, people published presentations related to the seminars and such kind of things". He says that some of the students considered it to be like the ordinary homepage, and because of this they did not see the point of using the system. "We started to understand why they thought we should use it at the end of the course, but in the beginning it was more like – why should we use this?" He started to publish content in the blog so there should be some text there, get a layout at the site, but he stopped using the tool after this was done.

Content and Updates

This weblog is an example of a blog that has been used to a small extent. The student is starting out with a humorous tone of writing, and this continues to be the foundation for the weblog (see appendix D for an overview of the original content in this weblog). The student has some published content that are relevant to the course, and it seems like he is trying a serious attempt of using it in relation to the seminars. In general the published texts is less serious, and the language seem internal, only including some of the participants within the course, which may see to that other students outside the internal circle will find it less interesting.

Reading Other Weblogs and the Use of Comments

All in all the student used the weblog next to nothing, but he did read some of the other students weblogs and says that some of them just seemed more eager to use these sites then he was. "I visited other students blogs in order to see what they had done". He also searched for style sheets in other weblogs and read one blog that did not belong to the course. "The man who blogged during the war in Iraq".

The student did comment some of the post at sites he visited, but he says that the comments for the most consisted in witty responses to what they had written. "And the same goes for the comments that I have received". He says that he has not had the sufficient knowledge to leave comments that could have been useful for the editor of the weblog he has been visiting. "And when we didn't write much ourselves, we didn't receive any comments from the others either". He says that you need a severe overview in order to comment on a post. "They have found something in a book, and quoted from this, and than contributed with their own opinions. It would be difficult to criticize them without a professor title". The only thing he said he could comment on was spelling mistakes.

If the student had received feedback on his publishing relevant to the study, and not only in regard to humorous content, it may be that this would have provoked some continuing writing. There is a sudden stop in the publishing of posts after the student has written the 5th post during one week.

Hypertext Links

There are no hypertext links to other weblogs or discussions within the course, and the hypertext links created in relation to written information are all in one single post. The hypertext links that were made was because he thought it was enjoyable to do. "I made some

links in the text in the one serious post I wrote". These are referring to course information including presentations made by other groups.

He also had hypertext links to other weblogs at his front page, but he has not made use of any hypertext links in weblogs belonging to other students attending the course.

Collaboration

The student says that there were some of the participants that contributed in order to make a community, the most ardent ones, but he was not among these. He does not think he would make use of the weblogging tool after the course has ended. "I could have used it as a homepage, but no, I don't think so".

Frank's Personal Experience

Frank does not think his use of the weblog made any difference in relation to the course. Summarizing his experience he says that he did not even think about using the tool after his last published posting in February. He says that he would need to be part of a some sort of community were others make use of the system, who comment on your writing or else it would just be publishing text. "I don't see the point". He thinks that the system could be useful related to writing, and training in publishing things. He does not fully remember why he stopped using the tool. "It just faded. We didn't hear form the lecturer in a while, and then there were little contact in relation to the course for a month. Notting happened. And when you didn't read, and didn't have any relations to other people taking the course, then it all became nothing".

He says that he thinks it could have been a useful tool, but that they needed closer follow-up in using it. "I think I had the intention of contributing in the beginning". He does not think that the use would need to be compulsory, but that the use should have been more clarifying. "It may be that this were said, but not thorough enough". He also thinks that the use of weblogs ought to be tested properly before they think of making the use of the system compulsory. "There were resistance among the students in this regard when they talked about making the use of the weblogs mandatory in the beginning of the semester". Frank's experience and use of the system is summarized in fig.39

Weblog as a tool	-	Easy to use, familiar way to work
Content	- -	Humorous tone of writing, mostly personal Some scientific postings
Updates	-	Only in February
Use of comments	-	Only witty response on published posts
Receiving comments	-	Only humorous comments
Use of hypertext links	- - - -	Links to other weblogs on front page Some links to other sites within the text No links to other weblogs in text Not made use of links in other weblogs
Collaboration	- -	Some contributed, the most ardent Read some of the other weblogs
Personal experience	- - -	Could be useful when writing Could be useful for publishing Need closer follow-up
Scientific profit	-	Did not make any difference
Continue use	- -	Do not think so The blog is not active today

Figure 39: Overview over Frank's experience and use of the system

6.4.6 Weblog Use – Lise

The interview subject is a female student at 24 years of age. Her educational history consist of subjects taken within information science at the University of Bergen, pedagogic and inter-cultural understanding completed at private institutions, and in addition she has studied teaching at an academy in USA.

The first post written in this weblog is at the end of January, and the last published post is written in February. The weblog contain an average of three postings during the two months that the student is active within this environment. An overview over the frequency in relation to Lise's use of the blog is shown in fig.40
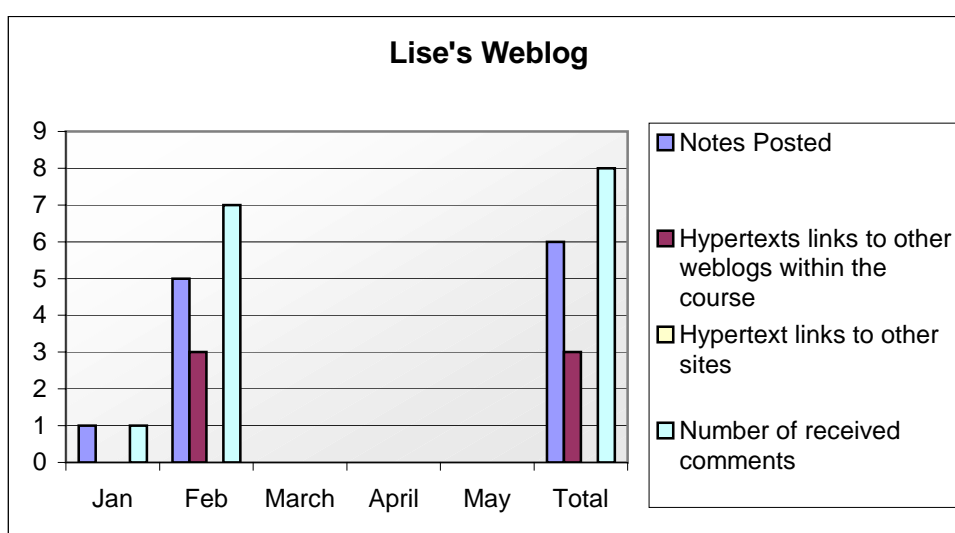
Figure 40: Overview related to Lise's use of the weblog

The Weblog as a Tool

The student says that she fond the beginning quite fun when starting to use the weblogging tool. She changed colours and programmed in HTML. "This was fun because it was the only practical thing I had done all year". She said that it was not because the tool was difficult to use that she lost interest. "It was more like, what should I write? It should be something reasonable". She says that although Walker who explained how the tool could be used had visited them, she did not understand it all in the beginning. "I haven't written much, and when I did it was in order to get started. After a while I didn't see the point of using it. I didn't think it was a good tool to use".

Content and Updates

The student is starting to use the weblog in relation to the course. The content in the published postings are relevant for the editor and her group regarding different assignments that they have been working on. The student is writing short abstracts related to what the group is working on at the moment, and what they will be working on in the near future. Other work or discussions going on in other weblogs are not mentioned (see appendix D for an overview of the original content in this weblog).

When she published posts she says that it was both because she wanted to do so and because they were encouraged to start using the system. The content was related to presentations in relation to the seminars and the first given assignment. The student did not find it natural to write about personal happenings. "I don't want everyone in my class, people I don't even know the names of, to know so much about my private life". She says that the published posting was related to scientific themes, and her interpretation of the course. "I think this was because Walker showed us examples from blogs that were a mixture, and I thought that this was how we should use them".

Reading Other Weblogs and the Use of Comments

The student says that she has been reading other students weblogs. "Especially the ones that belonged to people I hang out with". She also read some weblogs that she heard of by reputation. ""Have you seen that weblog"?! Then you often take a look".

Comments received in relation to the published postings are all less serious regarding the post they are responding to, except the one comment given by the lecturer, and the reply in relation to an e-mail sent by the group. One can wonder if the commenting had been more related to scientific themes, if the student would have gotten more interested in the use of the system.

She has been commenting in some posts belonging to people she has had a personal relation to, and she says that this is mostly for fun. "I don't find it natural to comment in peoples blog when I hang out with them all day, then I rather tell them in person".

Hypertext Links

The student has been making some use of hypertext links, but only in relation to other people, never because she wanted to put her writing into a larger context (fig.40). She says that her group members have been talking about the need to have an additional environment to meet in, but that she considers this to be more related to the use of chat systems. The student says that

she had a look at the only group-blog made in the environment, but that their use was too thorough in that they wrote about every meeting and every progress. "We wanted a place to meet contemporary, were we could have published the latest version of things. It takes too much time sending it back and forth".

Collaboration

The student says that she can see the use when working with students that don't spend that much time at the institute, that live somewhere else. She also says that she thinks the use is rubbing of from the people you spend most of your time with. "If everyone had taken the use seriously, and I think they did in the beginning, if that attitude had maintained… But if the use would have been very scientific when this environment is so small…" She thinks that the use of the system would have spread among the students if they had another school to collaborate against. "That we would have someone outside to work with, that could see our blogs and we could see theirs, then there would have been more room for discussions". When asked if she read weblogs that are not related to the course she says "no, just Walker's blog".

Lise's Personal Experience

Lise does not think she gained any scientific prosperity when using the weblog. "I think the weblog has been difficult to follow. I don't find it interesting to read about everything someone has been doing, it's toilsome. Always opening new windows to find what has been said." She says that the use of the course blog has not been consistent, some messages has been given by e-mail, some through the course-blog.

The student says that she can see the point of using a weblog, but not in a scientific relation. "It is more for those who is capable of using their leisure to do this". She sees the weblog as a closed environment because she does not think many outsiders stumble over the weblogs on the Internet. There is a need to grade the use, she says, in order to get the students to use the weblogs. "But on the other side, I don't think one should grade something like this, but it may have been useful".

She says that she does not think the students saw the point in using the system, she would rather prefer a system were everybody could meet at once. "You can link to what you want in the blog, but I don't find it natural to find links and send it to other people". She does not consider herself to be an active computer user that sends a lot of emails to other people. "I don't enjoy receiving much of them either. And I feel that the weblog is some kind of similar system even though it is a more static site were you choose to enter". The student think that

she found it strange that blogging is supposed to be useful when the rest of the course follow the ordinary traditional teaching system. "If they would have changed the course, and encouraged the use of the blog more. I think that the curricula and the seminars also must follow the development, and when it doesn't…" Lise's experience and use of the system is summarized in fig.41

Weblog as a tool	- Easy to use, fun in the beginning
Content	- Related to given assignments - Extroverted writing
Updates	- One in January, the rest in February
Use of comments	- Humorous comments to people she knows
Receiving comments	- Humorous content
Use of hypertext links	- Links to other weblogs on front page - Some links to other weblogs in text - No links to other sites in text
Collaboration	- Voluntary use - Encouraged by lecturer - Read some of the blogs belonging to people she has a personal relation to
Personal experience	- See the point of using it, but not in a scientific relation - Need to grade the use of the blogs - Useful if not being able to meet in person
Scientific profit	- No
Continue use	- No - The blog is not active today

Figure 41: Overview over Lise's experience and use of the system

6.4.7 Weblog Use – Thomas

The interview subject is a male student at 25 years of age. His educational history consists of subjects taken within media and information science at the University of Bergen, French for the economic life at NHH, and Spanish at a private institution.

The student starts to write at the end of January and the last published content is written in April. The weblog contain an average of three to four postings during the four months that the student is active within this environment. An overview over the frequency in relation to Thomas' use of the blog is shown in fig.42
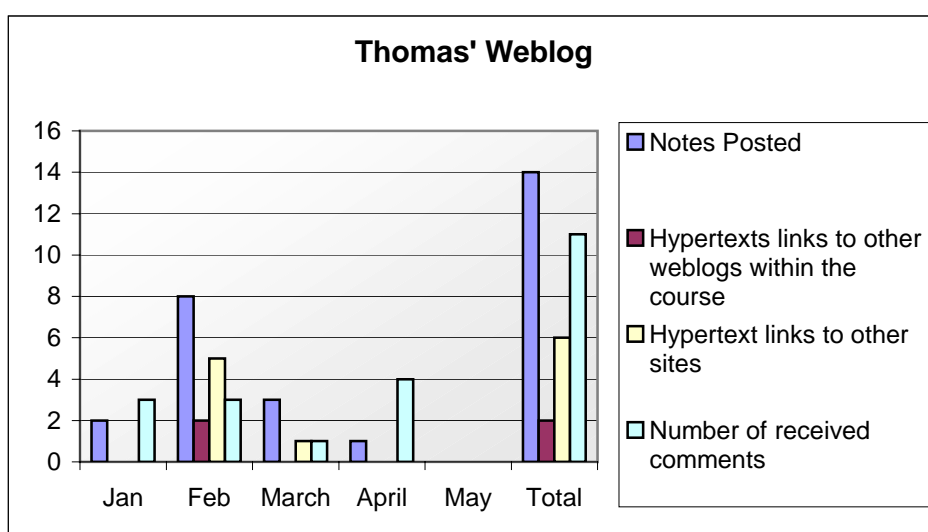
Figure 42: Overview related to Thomas' use of the weblog

The Weblog as a Tool

The student did not find the use of the tool difficult to understand because of the technical adjustment made by the lecturer, and he did not have problems with his motivation because he felt enthusiastic over the idea of using the weblog. "I though it was a nice way to express many of the thoughts that one often keep to oneself, and it could in addition function as a log over the work that is done". He imagined that he would make use of the system on a frequent basis, both in relation to the scientific themes and regarding other everyday stuff. "In the beginning it was merely positive thoughts around it".

Content and Updates

The weblog is, on the whole, posts relevant to scientific themes in relation to the course, it is just the first to posts in the weblog published in January that mainly contain social matters (see appendix D for an overview of the original content in this weblog). The writings are dealing with presentations given in connection to the seminar, résumés from set books and articles, and the written assignment given in the course. It is the two latter that is getting the most attention in this weblog. The student are giving the progression when it comes to the groups work on their assignment, and the content is enthusiastic when telling about choices made in this relation.

The student is extroverted in his writing, and there is given promises when it comes to frequently publishing résumés in the blog, but these are often postponed because of work that has to be done in relation to other courses taken by the student this semester.

He says that he has mostly written for his own sake, used the weblog as a reason to write. "I like to write, but I haven't had any to write for. I don't think it would make a difference if hadn't received any comments in my blog, although it is flattering". He thinks he has been encouraging towards others that have been using the system and in that way been part in trying to create a culture. He says that he established the other personal weblog outside the course environment in order to see if it could function better that way. "You don't feel quite anonymous within such a small environment, so you don't want to totally uncover yourself."

The weblog reaches its peak in February, and the activity descends from there. The last, and only post written that month is published in April.

Reading Other Weblogs and the Use of Comments

The student has read weblogs in relation to the course. "You soon found blogs that rose above the others. There are mainly two weblogs I have been visiting the most because of the content. One of the editors is someone I know in person, and the other I don't know".

The comments received in the published postings are mainly written with a humorous tone, and there is only one respondent answering a question in relation to a scientific theme.

The student has left some comments in relation to scientific subjects posted within the environment. "I had the idea that we could establish like a leaning community, and collaborate. I tried to be engaged, but it didn't last for long". He says that the lack of postings is a sign that the interest was not that big. " I think I saw it as additional time. If I used an hour writing in

the blog, then I felt it was, if not wasted time, then at least lost time that I could have been using doing something else".

Hypertext Links

There are not created many hypertext links to other weblogs in relation to the course (see fig.42). The student has done this in two cases, and they both belong to the student's group. There is neither made hypertext links to other student's discussions or assignments within the virtual environment. The hypertext links that are established is related to presentations, articles and homepages (e.g., corporations). Compared to the 'traditional' use of a weblog, the postings are short and concise, but the use of hypertext links in order to broaden the readers knowledge about the written material is little made use of.

The student says that he tried to find interesting sites that he could link to, and to friends taking the course. "In the beginning I tried to find sources to use on the Web, and refer to these in trying to get the structure I interpreted that a blog should have". He also made use of hypertext links in other weblogs belonging to students within the course, other scientific weblogs, and other independent weblogs he found on the Internet. "Mostly out of curiosity".

Collaboration

The student says that he wanted to give himself the habit of using the weblog, but then it became longer and longer between each published post. "If you look at the blogs belonging to the member of my group you'll see that I'm the only one who has written anything the last months. If you look at the interest taken and the engagement given by my group, you'll understand why we don't have a group-blog". The student says that he wanted to use the tool regularly, force himself to write in it because he saw the blog to be useful and exciting both private and scientific. He says that he has created a weblog on his own, outside of the course environment.

The student says that he always saw the weblog as a useful tool to discuss with others. "But I think it has something to do with how we're used to work. It takes some time getting to work in new ways. Traditionally you hang over a book, or write an assignment". He says that he find it peculiar that they read about this kind of communication; being able to talk to others outside the course environment, create discussions, and still they do not make a descent attempt in using the system when they have the opportunity. "It is a paradox that we're not trying to do something about it".

Thomas' Personal Experience

Summarizing his experience Thomas says that they read about the advantages of using this kind of systems, but that they nevertheless made use of it anyway. He says that many students are reluctant to share their knowledge with others, afraid to be criticised. The same goes when commenting other students writing. "You're afraid of being critical, and choose the easy way out avoiding scientific discussions. Some are frightened to lay open their ignorance, expose themselves to the other students. It's safer to say nothing. This result in less engagement, and the students writes about things they can't be criticized for."

The student says that if they would give the weblog some time, getting to know its use, then it would be easier to use it in relation to learning something, and daring to make mistakes and learn from them too. "I think it has something to do with the physical context, that we know each other, that the environments is so small". He thinks he will continue to use the weblog after the course has ended, in relation to the writing of his master thesis. "In order to structure my thought in an environment for my self". Thomas' experience and use of the system is summarized in fig.43

Weblog as a tool	- Easy to use
Content	- Mainly scientific - Résumés from articles - Progress with written assignment - Extroverted writing
Updates	- Mostly in February - Published post regularly from January to May
Use of comments	- Commented on scientific subjects
Receiving comments	- Humorous, one serious comment received
Use of hypertext links	- Links to other weblogs on front page - Some links to other weblogs in text - Some links to other sites within text - Made use of links in other weblogs, also outside the course environment
Collaboration	- Read other weblogs - Encouraged others to use their weblogs - Created another weblog outside the course environment
Personal experience	- Students are reluctant in sharing knowledge - Students are afraid to comment post in other blogs - The course environment is too small for this use
Scientific profit	-
Continue use	- Yes, as a log to structure thoughts related to master thesis - Course blog is not active today

Figure 43: Overview over Thomas' experience and use of the system

6.5 Weblog Summary and Results

In the following there will be given a résumé in regard to the seven weblogs previously described. An overview related to the student's use of weblogs is summarized in figure 44.
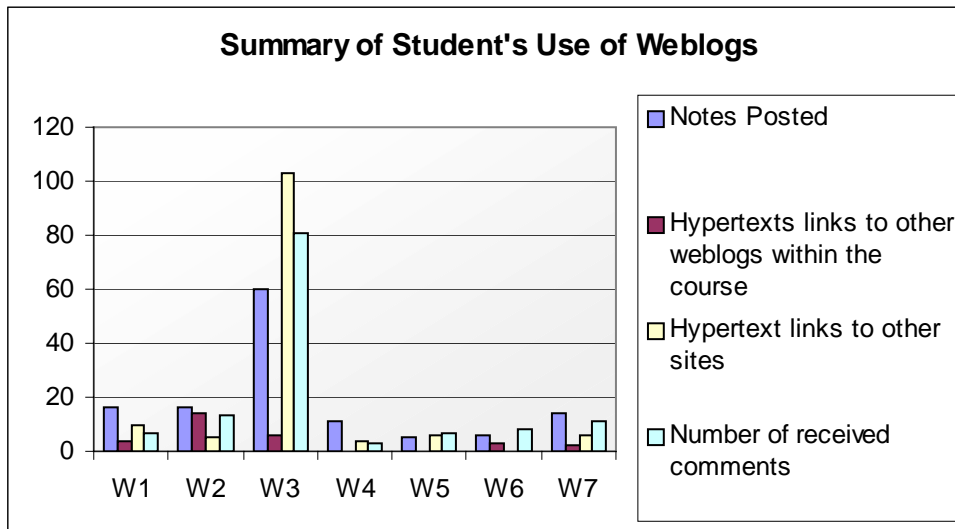
Figure 44: An overview of all the interviewed student's weblogs and the frequency of their use

All of the students interviewed thought that the Movable Type weblogging system was an easy to use tool. The responsible for the course chose to implement the system in advance so that the students only needed a password and a sign in name in order to get started with the use. If there were any difficulties it was more related to the threshold of publishing the first post in the system. Two of the students said that they were used to publishing in a public sphere and therefore had no trouble with their writing in the beginning. Others said that they had some trouble regarding what they should write about, and how personal or scientific their writing should be.

The weblogs indicated that the students used some time trying to find the pattern they felt most comfortable with when writing in the weblog. In the beginning of their use a lot of their posts were short comments related to "testing, testing", and none of the posts started out with a scientific content. Two of the weblogs described previously (Per and Frank, see fig.36 and fig.38) kept a mainly humorous tone throughout their use only interfered by a few post related to their course. All in all these to subjects used their weblogs to a small extent throughout the semester. Three of the other weblogs (Trine, Lise, and Thomas, see fig.32, fig.40 and fig.42) were mainly publishing posts with content relevant to the course. The resemblance between the three is that they either write about their assignments or résumés related to articles.

This is also seen in other weblogs in addition to the ones previously described, most of them have written about one article that they have introduced with their group during a seminar. These posts does not contain discussions relevant to the things read, they only present summaries of the read material. The same goes when there is written about group assignments, the content introduces what they should do, what they are doing at the moment, and what they are suppose to do in the future. There are no discussions relevant to the choices made. The two weblogs that remains (Jonas and Ivar, see fig.30 and fig.34) are discussing some of the content relevant to the course. Jonas goes into specific theories mentioned in heir curriculum, while Ivar discusses themes on a more abstract level. The difference between the two is that Jonas are mainly writing about scientific content in the beginning changing to become more personal towards the end, while Ivar mostly publish posts that are a mixture of both. The content in the seven described weblogs can be divided into five categories as shown in figure 45.

Content	Description
Amusing	Not related to the course; humorous content
Private	Not Related to the course; stories from everyday life
Course related	Related to the course; summaries of articles, descriptions of assignments
Discussions	Related to the course; discussions of themes related to the curriculum
Technical	Related to the use of the system; problems and features

Figure 45: Content in the seven described weblogs divided into categories

The weblogs can from this be put into the various categories divided by content as shown in figure 46. One weblog can fit into more than one category.

Weblog	Content
Jonas	Discussion, course related, private, technical
Trine	Course related, technical
Ivar	Discussion, private, technical
Per	Amusing, course related, private
Frank	Amusing, course related, private
Lise	Course related
Thomas	Course related

Figure 46: The described weblogs divided into categories according to content

Most of the weblogs were updated regularly in the beginning of the course, and some of them with several postings during one day. Each of the seven weblogs has the most published post in February, and the activity decrease in April and May. Some of the students indicated that this was because of the last written assignment and preparation for the final exam.

The use of hypertext links was somewhat inferior compared to the traditional use in a weblog. All the students had links to other participants on the front page of their blog, but this is not related to any written post (see section 7.2). Few of the students had links to other attendants related to discussions or work that were done by fellow students in relation to the course. When there was use of hypertext links in combination with written text they were mainly referring to members of the group, and often in combination with an assignment. Two of the introduced weblogs (Jonas and Ivar) separate from the others by having discussions in their weblogs, and also referring to other students work (in most cases each other).

The weblogs that are analysed has all received comments in some of their published posts. What content they have response on varies from blog to blog, and to some extent does the comments reflect the content; questions relevant to scientific themes are answered, technical problems receive solutions, and humorous content are commented in the same unserious tone. Non of the comments have resulted in longer discussions in regard to exchanging opinions relevant to scientific subjects, but some weblogs (especially Jonas and Ivar) has conversations going over some time; these are related to private things or technical matters. The difference made is that the editors of these weblogs answer the comments given, and this result in longer conversations with other students.

The majority of the students do not feel that they have become part of a community through their use of the weblogs. Some of them did not find the tool interesting enough to continue the use, others said that there were too few students that were actively taking part within the environment, and none of them would call them selves a 'blogger'. All of the respondents read fellow student's weblogs, and all of them commented in some of the sites they were visiting. The response they left behind were due to well written content, content that were unclear and needed clarification, to express thoughts, to be witty, or to show the editor of the visited page that they had read the posts.

The personal experience is, inevitably, diversified. The students can although be divided into three groups of users; the ones that has updated their weblogs monthly, 3-4 months of the semester, the ones that started using the system and suddenly stopped, and the eager user who

updated the weblog weekly throughout the semester. The use can be summarised as shown in figure 47.

Weblog	Type of User	Description
Jonas	Ordinary	Weblog updated monthly
Trine	Ordinary	Weblog updated monthly
Ivar	Frequent	Weblog updated weekly
Per	Minor	Suddenly stop in the use of the system
Frank	Minor	Suddenly stop in the use of the system
Lise	Minor	Suddenly stop in the use of the system
Thomas	Ordinary	Weblog updated monthly

Figure 47: The use of the weblogs divided into user types

- The 'minor users' could not see how the system could be useful in relation to course. One of them said that he could not contribute because he had not read enough of the curricula to write or comment on scientific themes. Another said he could see the advantages in relation to practice on writing and publishing, and the last could see the benefits if the students did not have the possibility of being at the University daily. The minor users agreed that it was more cumbersome to ask questions in their weblogs when they could talk to their fellow students in person every day. Two of them thought that the use of the system should be mandatory.

- The 'ordinary users' agreed that there were too few students that made regularly use of the system. One of them said that he thought it was disappointing when expecting the same engagement as were shown in examples of how to use a weblog, and he wished he had received more comments on his postings. Another user thought it was a great tool to use when learning to express her thoughts trough her writing, but she said that others probably had more use of her weblog than she had of theirs. The last user within this group believed that the students are reluctant when it comes to share their knowledge; afraid that they will reveal ignorance, which is why the students mostly write about scientific themes in the form of facts. This student thought the course environments were too small to be used in relation to this system.

- There is only one of the students in this relation that fit into the 'frequent user' type. The frequency of published posts is plenty higher then in the other weblogs (see fig.34). This student says that he collaborated with some of the other users, but that the activity was next to nothing when it came to most of the weblogs. This user is familiar with the Internet, and he said that he has written in public spaces on the Web before. He found it interesting to be able to express himself and communicate with others like he could within this system.

6.6   Summary

This chapter has introduced the data material analysed in relation to this study, subjects that were covered in the various sections are the following:

- Introduction to the organisation of data material

- Organisation of the weblogs

- Transcribing the interviews

- Introducing each of the interview participants and their blog
    - Jonas
    - Trine
    - Ivar
    - Per
    - Frank
    - Lise
    - Thomas

- Summary and results from the students use of weblogs

The next chapter will discuss the findings and result of the student's use of weblogs in relation to the theoretical framework chosen for the subject study.

7. Observation & Discussion

7.1 Introduction

This chapter will discuss the observations and findings from the data organised and analysed in the previous chapter. The discussion is founded on the theoretical framework chosen for this study, CSCL and the sociocultural perspective, with following high-level implications. The last sections introduce the reliability and validity in relation to the evaluation of this study.

7.2 Observations

The Movable Type system that is used in relation to this study was not developed in the capacity of being educational software (see section 3.6.2). The system is implemented in its original state, and in this relation becomes educational software to the user. It is not an element of surprise that all of the students attending the course of analysis has approached and utilized the weblogging tool differently. The weblog is often compared to a personal homepage, and every person does not have the interest in keeping their own personal homepage, hence it would be natural to assume that implementing a system that is based on voluntary use is not something every student would be susceptible to. When it comes to all the students use of the weblogs in the course on can divide them accordingly

- Some students published a post or two and then it never became more of the use.
- Some students started out eagerly, somewhat unstable in what to write about, and the writing changes between content related to the course, and stories from their everyday life. After a month of use the publishing stopped completely.
- A few students kept publishing posts regularly throughout the semester, mostly content related to the course in the form of summaries regarding read articles, and information about their given assignments.
- Fewer users can be put into the frequent group with weekly and sometimes daily postings.

The interviewed student's could from this be divided into three various categories, as shown in fig.47

The content published in the student's blogs varied from being personal with stories from their everyday, humorous and witty, course related with information regarding read material and their given assignments, technical with emphasis on the use of the system and its features, and

discussions around scientific themes. The content could from this be divided into five various categories as shown in fig.46

The content that existed in the published posts shows that most of the students mainly wrote about

1. course related information,
2. their personal life,
3. other things put in a humorous setting,
4. technical matters,
5. and two of the interviewed subjects had posted content that can be labelled as discussions.

The length of the posts varied from short descriptive texts, and small stories, to lengthy descriptions of read material. Some of the summaries went over several pages.

The use of hypertext links was utilized in two different ways; static links that were to be found on the student's weblog front page, and the use of links in the written text published as posts.

- The links on the front pages were mainly categorized in similar ways; links to other weblogs (mainly to other students attending the course), links to the archive were older posts are filed – sometimes divided into subgroups (subjects, themes etc.), recent entries published in the blog, and links to sites of interest to the student. The students had the possibility to create links to whatever they wanted to be visible on their front page. One of the interviewed subjects also had a category with the latest comments received in the blog. The static hypertext links that connect the various weblogs to each other can be displayed as a network as shown in figure 48. The figure shows the different weblogs in the course and the relation between them. It does not say anything about the relation, it only displays the different weblogs, which weblogs that are connected, and those that are not. This network is further discussed in relation to the evaluation of this study (section 7.5).
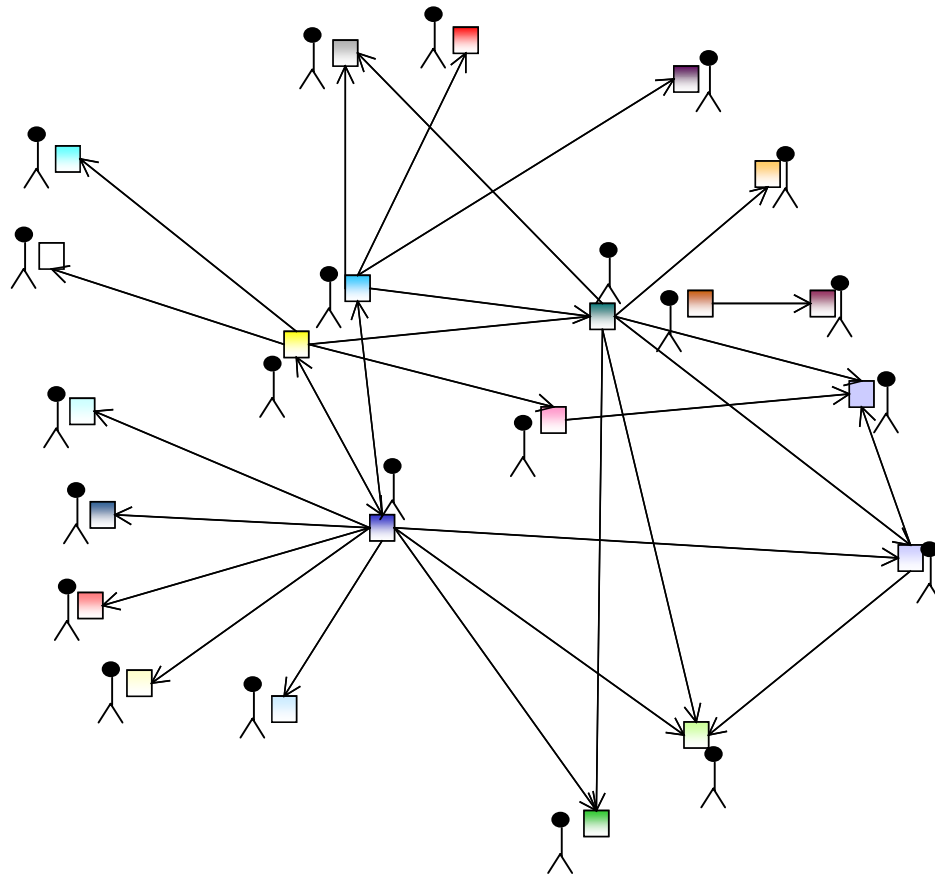
Figure 48: The figure shows a social network between the weblogs in the subject of analysis

- The hypertext links used within a post is meant to give the reader some additional information relevant to the read material. The point is to keep the posts short giving the reader the opportunity to follow these traces if the content is of interest. All the interviewed students made more or less use of links within their posts, the frequency of the use varied from person to person. The links were mainly created when referring to articles read, in regards to PowerPoint presentations given in a seminar, or when the student were referring to group members or other students attending the course. Sometimes there were links created when the content was personal, and a few links was made in relation to discussions or referring to work done by other students. Some of the posts did not contain hypertext links within the content.

All the students that were interviewed used their weblog in the beginning of the course, and the progression in the weblogs developed differently. The voluntary use of the system could be categorised according to user types as shown in fig.47, and these user types can also be utilized in relation to the progress in the weblogs:

- The 'minor users' started to use the weblog writing about the course and their assignments. Two of the students also had content in relation to the private sphere mostly in the form of humorous information. All or most of the posts were published in February, and then a sudden stop in their use.

- The 'ordinary users' utilized the system for a longer period of time. All of them had a peak in publishing in February, and then the activity decreased during the next three months. The content is mainly related to information relevant to the course (articles, assignments), except for one of them were the published posts begins with scientific content (also discussions) and ends with personal information.

- The 'frequent user' utilized the system all through the semester. The most published posts in the one weblog put in this category also had its peak in February. The content is mainly a mixture of scientific discussions and personal happenings, and there are next to none postings in regards to résumés from read material.

7.3   Discussion

Every quotation used in the discussion is translated from Norwegian to English. The original quotation can be seen in appendix F. The discussion could have been building on foundations from different viewpoints, and there are several ways to consider the student's use, but the theory chosen as a framework for this thesis, and the field of CSCL emphasis in relation to social phenomena, makes it natural to focus on the collaborative use of the weblog system. The previous section describe the results and observations from the students use of the weblogs, this section discuss the student's use within a sociocultural perspective, and are based on the research questions in relation to this study:

- Content:
    - What are the students writing about?
    - Who, and what, are they linking to?

- User patterns:
    - How often do the students write in their weblogs?
    - Are there any students that do not write in their weblogs?

- Progression:
    - How do the student's weblogs develop?
    - Is there any indication of knowledge building activities in the weblogs?

The use of a weblog can be divided into two categories: a) a weblog that come into being because of personal interests, and b) a weblog that come into being because it is incumbent by a person or situation. The reasons for establishing and using a weblog can be divided into even more various categories, but in this relation these two are chosen to be able to discuss the use in relation to education (category b) and because it can be meaningful to relate the use in relation to this study to other employment of a weblog (category a). These to categories are founded on the description given in figure 49.

Division	Reason for establishment	Description	Community
Category a	Personal interests	Ordinary	Internet community
Category b	Incumbent use	Education	University community

Figure 49: Dividing the use of weblogs into categories in relation to this study

Category (a) described as 'ordinary' is referring to the weblogs as they have sprung up on the Internet, and the networks that became out of this voluntary use. This is the weblog as described in section 3.3, in its original state. Category (b) is the weblogs as they are used in relation to this study. Established in relation to a course within the university community.

Although comparing the ordinary use of a weblog to a weblog used in relation to education is not completely fair, it is tempting to do just that. The original use that sprung up on the Internet was the attractive reason for the educational establishment to employ the use of weblogs in the first place. The most appealing feature within this system is the communication and relations that sprung up in relation to users in the virtual environment. Networks between weblogs that found each other because of interesting or tempting published posts. Networks that continued to develop because the participants within these communities talked about each other and other sites they found, and left behind paths for others to follow. It is not remarkable that educators find this tool attractive; it is easy to use, anyone can read and comment the published content, and many of the systems are free of charge.

The student's use of weblogs needs to be seen in relation to their habitual behaviour when it comes to the ways in which they approach the educational material. Compared to the weblogs in relation to the Web design and Web aesthetics course (see section 4.2.1), which employed a structured variant of their use, the use of the tool in this course were completely voluntary, only encouraged by the lecturer. One of the challenges choosing an unstructured procedure was to see how the students would adapt to the system on their own, and if there would occur collaboration among the students within this virtual environment. In order to analyse their use there is hence necessary to keep in mind how the students are used to work in relation to educational material.

Bjørgen (1997) talks about the different reforms in relation to education and says that the focus has changed from the teacher towards the learner, the pupil and the student. Being 'responsible for your own learning' is in the limelight. Some is of the opinion that education has been

following old-established teaching methods too long with the use of feedback and control, but irrespective of what one may think in regard to these methods of teaching, they have resulted in locked expectations both in relation to teachers and students (Bjørgen, 1997).

Bjørgen (1997) further alleges that in the degree these changes part with the traditional expectations one must expect both confusion and insecurity. Knowledge is, compared to previous times, temporary, and of limited duration. The former 'competent student ' used to be the one that were guided by the teacher towards the 'true knowledge' – the facts in the book. This is not enough in our post-modern time were the ability to critical thinking is essential. The student today is responsible both when it comes to choice of sources and interpretation. The concept of knowledge is expanded; in addition to professional knowledge the students are facing requirements related to collaborative communication within the educational environment (Bjørgen, 1997).

Traditional study practice may imply why the students mainly wrote posts in their weblog in the form of "this is what the group are doing at the moment, and in the future we will do this…" or summaries regarding articles read instead of questioning the content. Thomas said in the interview "I think the main reason for why it didn't work was the habit. Or the tradition when it comes to sharing. You're very focused on your own things when you are studying". He continued with " but I think that I felt that it was additional time, like it wasn't part of the central work within the course. So if I used an hour in my blog, I think I often saw it as if it wasn't wasted time, then in any case time lost that I could have been using doing something else".

The student is relating the use to how he usually work with material related to educational studies. "I don't think I thought that I wasn't useful, I think that it was mostly due to the interpretation one has in relation to how one work with a subject. Through the traditions as long as one has studied and been in school its been over a book, or group work, or writing an assignment. I think it takes time to turn this around, or get used to, integrate this in the screen activities, accordingly blogging".

Dysthe (1997) is arguing (section 2.5.2) that if we look at the time students use regarding the four lingual processes with the intention of learning (read, listen, talk and write), students use most of their time on the first two processes. Talking and writing become inferior to this within higher education. In relation to social science, she says, practice is connected to our language. To learn a profession is also to learn the oral and graphical discourse form that is accepted within a tradition, and through the lingual communication the students make the knowledge

their own. In this relation it is paradox that the students do not use their language actively as a tool in gaining new knowledge (Dysthe, 1997).

Thomas is also through his previous comment mentioning the tradition when it comes to sharing information with his fellow students, and is with this indicating that students do not usually do so. He also says "We have read this about not having a sharing culture, and I can relate a bit to it, that one is holding back". Per is confirming this assumption during the interview when he says "It is information that I have been wanting to keep for my self and those nearest to me in order to have most profit from it. One is evaluated as individuals here so it is, at the end, if I can come up with something during the oral examination, which the others can't, then I receive the credit for it".

Stahl (2002) is talking about this in relation to the incorporation of collaborative software into a particular curriculum or classroom. The problem is, he says, that in addition to the changes in roles for the teacher and the student there is a need for a change in the curricula goals and the institutional framework. He questions the competitive grading system if the collaborative knowledge system is to become the new aim. "Is it any wonder that students are not used to sharing their knowledge?" (p.171). Jonas is expressing the same motivation "the scientific information in the course does not hold the same motivating factor as reaching the end-of-term, getting the final grade".

Per also said "I had a lot to do in the other course I was attending, wouldn't sit and write about an article only so that others could benefit from it". This comment is bringing in what Salomon (1992) is referring to when he is arguing that the success of CSCL is dependent on the personal responsibility of the individual learner, and the interdependency between the learners. Collaborative learning need structure when it comes to organising interdependence, it needs to be sincere to avoid group phenomena such as the free rider (Kerr & Bruun, 1983), the sucker effect (Kerr, 1983), the status sensitivity effect (Dembo & McAuliffe, 1987), and the ganging up on the task phenomenon (Salomon & Globerson, 1987). Trine said "In some cases it was like okay, I had done my reflections in regard to literature that I'd read and made some reports or tables, and then I hoped to receive some feedback and comments. In some cases it worked but usually it didn't", she continues, "I feel that my group and I, and a couple of others have contributed. It could have been so much better if more have used the blog. It saves time, meeting in groups is time consuming".

Beck et al. (2003) is arguing that the discovery of structures and processes in group-self organisation during collaboration is a relatively ignored dimension of CSCL. Beck et al.

(2003) further allege that "research has shown the influence of behaviour on hierarchy formation. […] Social expectations arise from status characteristics of group members and interaction dynamics" (p.314). The observation of the weblogs, and the content analysis of the written material, has shown that the students contribute unequally. Lise said during the interview that which weblog the students visited also depended on reputation, "'have you seen that weblog?!' Then you often take a look". Trine's weblog is one of the blogs that many of the students said that they had read, Trine said accordingly, "I think others has learned more from me than I have of them".

The content in the weblogs indicate that some of the students had some difficulties in the beginning finding a writing style they could be comfortable with. When the weblogs were introduced in the beginning of the course Walker demonstrated how different weblogs could evolve, showing them examples related to different user types. Thomas said in relation to his published content "It was nearly reports. I never took the time to ponder that much over, to express it in writing, what had been said and done". Indicating that he mostly wrote about scientific themes related to articles and assignments without giving it much though.

This is in conformity with the posts in his weblog (section 6.4.7), earlier described as scientific content (section 6.5). Trine says "You don't blog before you feel you have formulated something that can be read. Reflect a couple of times". Her weblog is also containing content similar to Thomas, without discussing the material (section 6.4.2) so 'reflection' is probably related to how the posts should be presented, not considering thoughts around the material. Jonas' weblog (6.4.1) is containing posts, which is described as discussions (section 6.5) indicating that the material is reflected upon, and he says "When I blog something scientific, it is often things I have thought a lot upon".

Stahl (2002) says that he has used educational software systems in several classrooms, but have failed to see them be used for knowledge building. It may be that students use them to express personal opinions but they rarely engage in the kind of ongoing dialog, which Donald (1991) refer to as the basis for a theoretical culture, or engagement in the investigation of conceptual artefacts identified by Bereiter (2000) as central to knowledge building[1]. Stahl (2002) further allege that students exchanging superficial opinions and questions "is just the first stage in a complex set of activities that constitute collaborative knowledge building (p. 179). Research has indicated that even simple statistics on thread lengths within threaded

---

[1] Discussion of knowledge building see section 2.3.1

discussion systems (Guzdial & Turns, 2000; Hewitt & Teplovs, 1999) has indicated that communication rarely goes beyond chatting (Stahl, 2002).

Stahl (2002) is in this case talking about educational software systems, systems explicitly constructed for collaboration within education. It is interesting to see this compared to the use of the weblog system, which is not developed with the student as a user explicit in mind, or with a foundation within a pedagogical perspective. Stahl (2002) emphasise the importance of setting up special learning context that guide the students when it comes to engage in collaborative knowledge building. He says that this are too often left up to the teachers, and continue "student activities must be carefully designed so that learning will require collaboration that will take advantage of computer support" (p.179). From this one may conclude that voluntary use becomes an extra challenge.

In relation to education the weblog systems are often a mixture between private and scientific content. How private a blog tends to be within these environments differ from blog to blog (section 3.4.1). Students are, within the educational establishment, more used to writing for themselves than other students. This shift from a private to a public sphere may require some getting used to. The weblog balance these boundaries between the public and the private, and the students interviewed said that they had been discussing to what extent the content should be private or scientific, without reaching any agreement.

Thomas indicated that it could be a problem to publish content within the course environment. "It may be that one doesn't feel that one is completely anonymous within such a small group that maybe one doesn't want to expose that much". Some of the other students did also mention similar problems, Lise said "It is not a point for me, that everyone in my class, which I may even not know the names of, knows that much about me. It is somewhat unnatural. I have been writing scientific things with a personal twist, like my comprehension of what is happening in the course, and I think this is due to Jill Walker's examples, that I had this in my head, generally a mixture". The lecturer encouraged the students to write about things one could relate to the course, at least in the beginning, but it may seem as though the students are influenced by the examples given regarding how a weblog is usually utilized. This concur with the content analysis that indicate that the students often tried to balance their writing between private and scientific content.

Other problems related to the private/public theme were, as Thomas mentioned, that the environment were small. The students found it cumbersome to ask questions through the blog when they mainly met in person each day. Per said "At the same time you attend, meet the

others all the time. What is the point of writing when you can take two steps to the others on the other side?" Lise mention the same "I don't find it natural, when you're with someone all day, to give them feedback in their blogs. Then you rather tell them." She continue to say that she could rather see the use if collaborating with students that can not meet in person, "it is okay enough if you belong to a group with people that aren't there all the time, and that live somewhere else, and then it is much more useful. But, like, when I hang with the same people all the time then…" Thomas is saying the same "But exactly within the course then it often becomes, it doesn't function. A bit because one is such a small group that we see each other every day". Lise is suggesting someone outside the course to work with, "if it for instance were a school in Oslo, a university community doing fairly the same as we. That we in that respect had someone outside, which in some setting should look at ours too, then it would have been more room for discussion".

In being able to get the students to collaborate, Dysthe (1997) is emphasising the symmetry within a dialog. It is difficult to imagine a genuine conversation, she says, if one of the participants knows the right answer, what Bakhtin would refer to as "the authoritative word" (section 2.5.4). Frank says in the interview in relation to leaving comments in weblogs that he has read "one have to have a mad overview to do that, because they have found something in a book and referred to it, and then their own opinion, and a lot of books again, it is hard to slaughter them without having a professor title". This comment indicates that the student don't feel competent enough to comment in others weblogs. Per says "the threshold for commenting what others has done feels a bit high in my case, because then I need to have enough background knowledge to do it somewhat properly".

The content in the weblogs indicate that the students leave 'safe' comments in the weblogs that they visit. Trine's blog (section 6.4.2) contained several résumés regarding read articles. Few of these received any comments in contrast to the post's that contained technical difficulties in relation to the weblog system.

Dysthe (1997) is talking about the authorative word in relation to the zone of proximal development (section 2.5.4), she says that a lecturer needs to have an explorative and open attitude towards the educational subjects, and a genuine interest in the students contributions. One can imagine that the same apply in the relation between students. The weblog as a virtual environment has the ability to fade some of the problems that come into being in face-to-face situations, e.g. students attending a seminar are not widely known to result in two ways conversations. But the same problems will probably apply in a virtual environment when it comes to revealing ignorance in a public forum. Dysthe (1997) is emphasising the feeling of

security and trust because students are more vulnerable when they present text that are incomplete, and maybe even more in relation to other student (than e.g. supervisor). How the criticism is presented is decisive in connection to fruitful collaboration (Dysthe, 1997).

Responding on posts has not only been done in relation to commenting scientific themes or arguing on the content. Some of the students have made use of this feature to make it clear for the owner of the weblog that they have been reading their posts. Some of the student indicated that it was disappointing not to receive comments, like Jonas saying "Too few students read the weblogs, and when one doesn't receive any response related to what one is writing, one give up the writing. It isn't enjoyable to write when one doesn't get any answers". This student tried to encourage others by commenting when visiting sites. "I comment spelling mistakes (laugh...) To show them that I've been looking at their site, feedback on their blog: cool blog, what you are writing there is funny". Another student, Ivar, is doing something similar "It isn't something I've been doing actively, but you can say that I've commented a bit. Thought that the one that owns the weblog would appreciate a comment, and then they may find it easier to write something on a later occasion. In that regard I may have thought a little about it, but not beyond that I think". Thomas has utilized a different approach "In that regard that I haven't tried to force non-bloggers to start, but I've been fairly positive and encouraging towards those who has done it regularly. If that contributes to create a blogging culture, then I think, yes".

It seems as if the students interviewed is influenced by the sociocultural theory themselves, knowing the reasons related to why using this system should be beneficial. Ivar said during the interview "there hasn't been that much scientific activity within the weblogs directly connected to the course. I don't have a feeling of a community, learning community, were one learn from each other, its been a bit like…One think about something, and then someone answers, but not to a high extent". In a question regarding personal gains from the use of the system Thomas said "I don't think I've profited scientifically, it has functioned as an example of some of the things we read about, as an example of how it can be done, maybe that is my gain?" he continue "as long as we write about it in our assignments, I think it is a paradox that we shouldn't try to do something about it. In a way we distance ourselves from what we write about". Per, who did not think that the weblog were useful, said "I think it is connected with the fact that too few students used it with the intention the lecturer had, so that some of the collaboration that should have taken place, I feel didn't become, except from Ole who wrote seventeen articles each time. I think that the condition for something like this to work is that everyone participate, they haven't".

These answers are indicating that the students are seeing the learning as a result from the collaboration. Trine said, "We didn't have any advantage of it, not for other reasons than putting words on reflections, writing practice, and getting over the blocking of publishing their thoughts. Those two things. It hasn't functioned as a group discussion other than within our group and against a couple of others. It's a pity". The same emphasis was given by other respondents, which can imply that they only consider the discussions that did not take place as the real way to learn. It may also seem as if they think that if not all the students participated, then the system did not function as it should. It seems as if the interviewed students forget that some of them have been reading and commenting in each other's blogs, and that collaboration also embrace the exchange between two people.

The weblogs is not only useful in regard to the collaborative factor, it would in addition give the student some practice when writing because they most likely need to approach the material before publishing, although the best solution would be to receive some response on these thoughts (Oldervoll, 1997). The sociocultural perspective emphasise that we can not elude learning (section 2.5.2) because it is a natural aspect of the human activity (Säljö, 2001). The weblogs is a tool were the content is not always supposed to be well considered before publishing (section 3.4.2). This can help the students brainstorm in an environment that keep track of their thoughts. The intention in an educational setting is that the student can go back and build on previous ideas, and get feedback from other students regarding these thoughts.

Some of the students saw the archive of postings in the system as a positive feature, like Ivar "I have written down some things, put words on some things. It's easier if you write them down and then look at them afterwards, and have it a bit clearer. If you write then you think somewhat differently. I gladly write things that are not for certain, like a mixture of writing an assignment you have been thinking thoroughly through or maybe not an assignment, but something you can well, and then something that isn't completely thought through, a bit like experimental writing. One may learn from this along the way". Thomas is a bit doubtful when explaining his use of the weblog in relation to the other students. "No, I think I have a somewhat personal, not in order to attend within an environment or a group, but maybe in trying to write. Use it as; it gives a reason to write. I like to write, but I haven't had anyone to write for. It is not because of feeling part of a larger group, sort of. I don't think it would mean anything if I hadn't received any comments in my blog, although I would have been flattered, but for the time being it would have been submissive, it would have been personal stimulus, get things out".

Dysthe (1997) assert that writing in many occasions has been seen as a purely individual cognitive activity. Modern theories, however, focus on the strong dialogic aspects in relation to writing. She further argues that when we write to communicate with others, we go into a dialog with an invisible reader, and writing a good text means internalising this dialog. This is why it is advantageous to communicate with genuine readers (Dysthe, 1997).

Most of the students that were interviewed had thoughts related to how to improve the use of weblogs in relation to the course. Jonas said "One need to do something to make people use the blog. The ones that shall blog should be genuine interested in the course, but when entering a Master one choose at random, knowing little about its aim. If it had become like a engaged community it could function very well". Trine thinks it has potential "but it needs to be mandatory, one post each week, post presentations in relation to seminars, suchlike things". Per is also mentioning the voluntary use "I think it would have been beneficial to use the system, if I had used it, and all the others had used it. Succeeded with the use that were the lecturers intention, and I think we would have if the use had been mandatory. One needs a kick in the butt in getting started with the use". Frank has been missing some follow-up in relation to the use, "It could have been a good tool, but I think it has something to do with the course follow-up, they haven't kicked us in the butt. Like the month when nothing happened, then we forgot, and then to start up again is difficult".

7.4 Implications

There are several things that has been emphasised according to the use of technology within the educational establishment. Some of the problems that have been discussed are student's difficulties when it comes to discussing scientific themes during seminars, and that it is easier to raise voice within a virtual environment. Dysthe (1997) is saying that there is a need when it comes to the feeling of trust and security when being criticised by fellow students, and even a greater need in order to make student collaboration fruitful. But how does one make the technology a safe environment to collaborate in? Technology alone does not provide the use. It provides the program. It is a tool that can be utilized in various ways in accordance with its users. An important aspect when it comes to the collaborative use of technology is that it is not the technology that makes the collaboration happen, but the students.

The interviews with the students indicate that they were not satisfied with their application of the weblog system. The question to be asked according to the student's own experience is how they measure the success of the system? How would the perfect use of the weblogs look like?

One can imagine that there exists a continuum from (A) to (B) where the success of the system is at the one end and the failure at the other, as illustrated in the example below.

(A) ————————————— (B)

Success   Failure
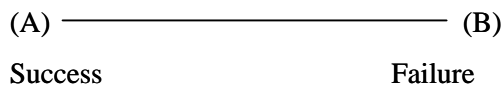
According to this continuum one can say that success (A) would be attained if every student engaged in the use of the weblogs. Each blog would contain new content every week, every question asked receive an answer, posts would have serious comments regarding their content, and the students would discuss thoughts around read articles and other material related to their curricula. From this use there would grow a social network between every weblog, a network that would relate every participant in double-way connections. On the other end of the continuum, failure (B) would come into being if the students did not make use of the weblogs at all, no posts, comments, or questions would be published within the system. If the students are measuring their employment of the weblog according to this continuum it would be understandable why they don't see their use as a success, but the reality is rarely equal to Utopia, and the success of a system is easier to place somewhere 'between' on the continuum than at one of the extreme points. Monitoring the weblogs the reality is that the students has utilized the system, everyone did start to publish posts in the beginning, and then some reduced their use, some stopped to write, and others continued to publish content throughout the semester. In relation to this study the use of the weblogs could be placed somewhere on the middle in the direction of (A).

(A) ———————⬤————————— (B)

Success   Failure

          Use of weblogs
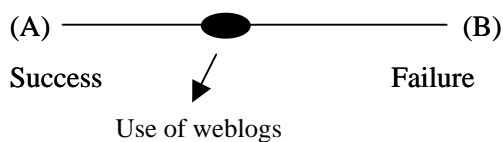
But it is not the activity alone that would determine the success of the system, the content in the different posts and comments indicate the level of the students relations. Summaries or translations of articles can hardly be described as discussions that are necessary for knowledge building, or can they? In previous sections it is suggested that students use of the weblogs need to bee seen in relation to how they are used to approach educational material. Some of the students are giving expression to problems related to their culture when it comes to share information with each other. They talk of not feeling competent enough to comment each other's work, or not wanting to use the time to write within the weblog only so that others could benefit from it.

Bjørgen (1997) is emphasising that there has been a shift when it comes to what is expected from the students in relation to education. He compares the competent student that used to be the one that were guided by their teacher towards 'true knowledge', accordingly the facts in the book, to the new demands towards the student in the form of being 'responsible for their own learning'. Following these changes is the belief that students can learn more together than they do on their own, lean upon each other to become more collectively than they can accomplish as separate individuals. So why does not the students change their patterns? Why do they choose to continue reading in their books if they can work together in the weblog system? The answer may seem evident. Although theories and research is emphasising the advantages of working together, the students are still measured according to 'old' standards. The 'true knowledge' is still to be found within the textbooks, or it is brought forward by the lecturer, and the final reward for taking a course is given at the end of the semester in the form of grades. So how is the collaborative use of technology suppose to make a difference?

The students influence by a 'right' way to do things does not only appear in relation to how they write about educational material (e.g. summaries) it also come into view observing how they have managed when trying to find a writing style within the weblog. Some of the students said that their environment were to small so it became difficult to stay anonymous. But why should they want to stay anonymous? The interviews indicate that this need is mainly due to two things; they do not feel comfortable when revealing personal affairs, or they are afraid to appear ignorant. This first cause is interesting since the students could write what they wanted in their weblogs, they did not have to write about their personal lives. The lecturer even recommended the students to use the weblogs concerning the course. Some of the students referred to Walkers introduction of how to use a blog, and said that they tried to use them according to these examples. This indicates that the students think there are a 'right' and a 'wrong' way to use the weblogs. They also discussed inwards to what degree the weblogs should contain personal content. The latter cause, fear of appearing ignorant, is indicating that the students consider their knowledge to be 'true' or 'false' according to some measurement. It may be that they are to involved in learning theories given in their textbooks, and therefore repeat this knowledge in their weblogs without discussing it. But if this were the case, then the students would see this repetition as knowledge if these facts are what they need to reproduce in a final examination.

In addition to try make the students collaborate through the weblogs, they were put together in groups to work on written assignments. In the effort of making them work together one could imagine that they would be more open to share information if they are used to working in groups, but what happen is that they keep their knowledge within this unit, so the group would

benefit if they know something that the others do not. This indicates that the student give boundaries to their collaborative community as long as their achievement is compared and graded against others.

Another problem mentioned by the interviewed students is that they though it was cumbersome to use the weblog when they met their fellow students in the halls on the university nearly every day. Why should they ask questions in the system when they could talk to others in person? This raises the question whether or not there is a need for the use of technology when not connected to distance learning? Why should the use of the system be beneficial when the students meet daily? The advantage with the weblog is that the postings are archived and easy retrievable, it saves a lot of time finding back to previous written material. In addition, the content are not only usable for the single individual but also accessible to every participant taking the course. This makes all the individual weblogs into a large knowledge base, if they make use of the system. In addition the weblog is technology used through the Internet, which means that the students are working in an environment with easily accessible information. This is an important possibility within higher education when our knowledge has a shorter lifetime today than before, it is essential to be up to date on theories and research. So why does not every student utilize the system?

The answer may be that they do not see the advantages, if they find that their traditional working methods are sufficient. This leads to a question concerning how students would measure the success of collaboration? If they were utilizing the system according to other learning methods than collaboration, how would they know how the perfect collaborative learning environment would feel like? The probability is that they would not now if they were taking part in a collaborative learning situation if they compare their experience with their traditional educational working methods. Then one could ask, if considering that there is a need for change, how to change the student's process when approaching educational material?

The students have learned through experience how to approach curricula on their own or in collaboration with others in the classroom (e.g. instructions of reading or group assignments). Because technology is getting more attention within the educational establishment, one can imagine that there is a need when it comes to learning the students how to effectively make use of these systems, and how to utilize them together. Students are already collaborating with the use of technology in the form of email and through the use of Instant Messaging Systems (IMS). A good deal of communication with their lecturer also takes place sending back and forth email messages. So why are the use of weblogs supposedly a better system to use in relation to collaboration? Compared to IMS' where the students can contact each other

immediately, or the message is stored until a student is available, the advantage with the weblog is that the postings and comments are visible to anybody (many to many communication), and everyone that is interested can read or retrieve published content with the use of search mechanisms. Compared to an email the user does not have to send new information to specific recipients every time, only store it once in a shared environment. The weblogs do in addition contain a chat room were the students can meet if there is a need for same-time collaboration.

SchoolBlogs.com (see section 4.2) has written about three developmental phases in relation to the use of weblogs in the classroom. The point is to " […] avoid any potential disappointments that progress towards community Utopia" and "[…] be aware of the potential benefits within each phase" (p.1). The developmental phase is divided into three various main stages during the development of a class weblog

1. The class weblog as an information and resource base
2. The class weblog as a developing community
3. The class weblog as community weblog

Although these stages are related to the use in relation to the classroom, it may also be that these can be useful aspects in higher education in a course at the University level, e.g. during face-to-face seminar meetings. Each developmental phase is described in the following.

The Class Weblog as an Information and Resource Base

In its initial phase, the weblog is created and 'sold' to the students as a source of information relevant to the life of the class. It may contain links to projects, important dates, etc. It will also have the space where the teacher can write. In this phase the information mainly flows in one direction, from the teacher to the class and beyond.

This phase gives the student the opportunity to become accustomed to the nature of the weblogs. The educator is modelling what weblogging looks like for the students, who will draw upon this example in their own online writing. Encouraging the students to read the blog is therefore an important feature within this stage. Having the weblog displayed for offline viewing on a class computer is a way to ensure that it is read. At this phase there can be postings of the students work to draw in the audience.

The Class Weblog as a Developing Community

As the audience and profile of the weblog increases, the students may want to start adding their own comments and work to the site. Engaging 'what do you think?' type writing from the educator can help motivate students to post using the comment function. The lecturer is generally in control of the pace of the transition between the first and the second stage. Email notification of comments can be sent directly to the lecturer's account, helping to avoid the need to sift through the weblog for response or comments.

The Class Weblog as a Community Weblog

As the flows of information and knowledge increase, the class weblog will become a hub in a weblog community. Students may be made contributing editors of the class weblog, with the ability to post their own text. Assignments may be offered on the weblog. Conversations and discussions can take place on the blog, which are not always led by lecturer. It may also be time for students to create their own weblogs, in which case they will be able to apply what they have learned using the class weblog.

SchoolBlog.com emphasise that these developmental phases are not fixed, they overlap. "What is clear is that a class weblog community needs to be built" (p.2). The advantage with the use described according to a classroom, is that teacher and students see each other every day, and hence they have time to go through these phases. In relation to seminars that only have face-to-face gatherings a couple of days each month, the 'getting to know the weblog' period needs to be reduced so that the students themselves can get involved with their writing towards each other. It may, however, be an idea to only have one course weblog in the beginning so the students get used to the way this system work.

The lecturer can choose not to make use of the traditional email system throughout the semester, making the weblog the main source of information regarding the course, curricula, assignments, questions etc. This makes the communication-flow between the students and the lecturer visible to everyone attending the course. It may be easier for the students to get over their fear when it comes to writing in public if they have to address the lecturer through the weblog (e.g. with the use of comments). There may be a need for a strict use of the course blog in order to get the students to engage, and keep engaging through the course, and emphasise that it is not only through their reading of textbooks they will attain new knowledge related to the course.

7.5 Evaluating the Study

The quality of this study will now be discussed. The evaluation is founded on aspects that are important in relation to this assessment, evaluation of the role as a researcher and the quality of this study.

7.5.1 Reliability and Validity of Study

This study made use of qualitative research methods, and it is hence difficult to talk about measure in regards to reliability and validity (see section 5.3.1 for definitions). Hammersley and Atkinson (1996) argue that criticism raised against the qualitative tradition is that the evaluation becomes subjective compared to the quantitative tradition. Criticism raised also concern impressions made founded on one or two cases that can not give sufficient basis when it comes to a strict, scientific analysis (Hammersley & Atkinson, 1996). Patton (1987) assert that every statistical data will in resemblance with qualitative research be founded on someone's definition when it comes to what is to be measured (phenomena) and how it will be measured. Hammersley and Atkinson (1996) argue that all social science is based on the ability of participatory observation. What is of importance is that the researcher is aware of his or hers role (Hammersley & Atkinson, 1996).

In relation to the observation of the weblogs, the material analysed were in the form of text, and therefore it is in this study categorized according to document analysis, although it may also be related to conversation (see section 5.5.2). Dysthe (1997) argues that it is unnecessary to talk about dialogs between text because there are always people behind them. The researcher can 'listen' to the texts that 'talk' to each other. The weblogs are archives that can be retrieved as long as the author keeps the published material public. The tradition within these systems is that posts that are published are not to be corrected in the future (although one should mention that the possibility is present). According to the reliability of the study in the form of retrieving the analysed material, the weblogs are available on the server for three years, the content can also be saved or printed out for future analysis so that the original material does not change after the completed study.

In being capable of saying something related to the collaboration between the students, the links established within the various weblogs could be followed. Stahl (2002) argue that learning that take place within software media does not only transmit utterances but also preserve them. And this is the role of the weblogs within this study. This makes the weblogs an appropriate tool for research because the collaboration between the students within this virtual

environment is visible to the researcher. In addition to follow the hypertext links between the weblogs, one could look for writing related to fellow students within the text, e.g. references to others work. Although the saving of the posts are visible traces to follow, one should mention that the collaboration deducted on behalf of the link network could be deceiving. The figure repeated below (original Fig. 48 section 7.2) shows a network based on the static hypertext links that could be found on the student's front page.
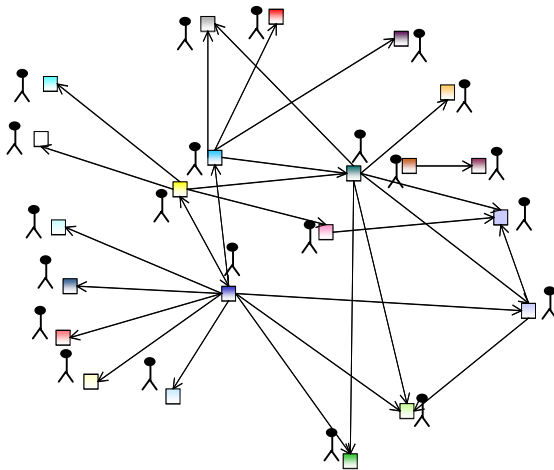
The figure illustrates that the students has created hypertext links to each other in relation to the course, but these links does not reveal anything in regard to how these links has been used, or if they have been used at all. If a similar figure were created, founded on the hypertext links established in relation to published posts within the system, links that refer to fellow students work within the course, the network figure would reveal less visible relations.

This lead to another problem related to the analysis of the weblogs in relation to the collaborative factor. The only visible relation between the students are if they write about each other, or link to each other, the content in the weblogs alone does not reveal anything in regard to if the students are reading each others weblogs. In trying to reduce this risk the interviews were conducted so that the students could talk about their own user patterns. The weakness is that this study is only referring to the seven interviewed students experience, although one can say that this may indicate that other students not interviewed share the same experience.

Atkinson and Coffey (1997) argue that "documentary reality does not consist of descriptions of the social world that can be used directly as evidence about it" (p.61) With this they argue that one cannot assume that documentary accounts are precise portrayals in this sense. In stead of making a point of text being used as 'valid' evidence in relation to a research setting, it would be more fruitful to see the form and function of the text themselves (Atkinson & Coffey,

1997). In this relation the weblogs function as an environment in addition to be presented as written conversations. This makes it easier to use them as portrayals because they are not removed from the context they were written in.

In relation to the interview process there can be a question of reliability and validity. Holsteind and Gubrium (1997) is emphasising the subject behind the interview "which bears an understanding of the relative validity of the information that is reported (p.116). The importance lies on the formulation of questions and the provision of an atmosphere conducive to an open and undistorted conversation between the interviewer and respondent (Holstein & Gubrium, 1997). Contamination has its origin in the interview setting, the participants and their interaction.

In relation to this study the interview process and the conversations took place at the end of the semester. This choice of time made it difficult to get hold of students willing to be interviewed because they were occupied with preparations related to their exam. Since I have been doing this research in the same environment as the course has been accomplished, the interviewed students saw me as one of their own. This situation, according to provision of atmosphere, can be positive in that the conversations flow easily, but the students may also be influenced by the fact that they know me in person and with this the risk that they tell me what they think I want to hear. It should also be mentioned that one of the interviews were a conversation with two students attending at the same time, this conversational form may result in that their answers were affected by each other.

7.5.2 Researchers Use of Weblogs

Stahl (2002) argue that researchers should have an innate understanding of the culture they are observing. "They should be competent members of the community or should be working with such members when doing their observation and analysis (p.178). In this situation, in addition to be working within this environment, I have been using a weblog throughout the research process. This was helpful because it gave first hand experience with the use of a weblog and the use of the Movable Type system that were utilized in the course. The negative side is that one can argue that my research may be influenced by my own experiences.

In relation to finding similar research the problem were that other research on weblogs is to be found in other weblogs (see chap 4 related studies). The tradition when it comes to keeping posts short made it difficult to find others complete work or focus because bits and pieces are written in different places in the blog, often over several months. The search is time consuming

and at times dispiriting. This indicate that one need to follow a weblog over some time in order to get a clear picture of the content, and themes. Seeing this in the light of using weblogs in education it means that if student 'drop in' on weblogs it may be difficult to find what they are looking for.

7.5.3 Use of English Presentation Related to Norwegian Data

The thesis is written in English with a view on subsequent publishing. This could be viewed as a problem since the weblogs were in Norwegian. In order to make it comprehensible and easy-to-read there was a need to translate the examples from the weblogs into English. In addition of being a time consuming process, the disadvantage of this solution is that it can be criticized for a number of reasons. The translation may not correctly illustrate what the student has tried to express, and the reliability factor lies completely on the researcher if the reader does not understand the original examples in Norwegian. The same is relevant for the interview process that was accomplished in Norwegian. Every quotation used has been translated. In trying to increase the reliability of these translations, every translated quotation is written in relation to the original and put in appendix' so that others has the possibility to look into the correctness of these translations. The Norwegian/English translations can bee seen in appendix B, E and F.

7.5.4 Reflections

The observations were accomplished throughout the semester, but first thoroughly analysed when the course had finished. Going through the content in every blog, and follow the student's links made the analysis time consuming. Each weblog contained written content that went over several pages, also in respect to the minor users. Reflecting over the process it may have been more efficient to select some of the weblogs in the beginning of the course, follow their development and interview the editors earlier during the semester.

7.6   Summary

In this chapter the observations and findings in relation to this study has been discussed, and there is given some high level implications by the author. Following there has been an evaluation in relation to the reliability and validity of the study. The next chapter will conclude and summarise the subjects within this thesis, and give some suggestions for future research within this area.

8. Conclusion & Summary

This thesis has been studying the student's use of weblogs in relation to a Pedagogical Information Science course, at the University of Bergen, in the spring semester of 2003.

Weblogs are similar to the more familiar homepage, but the difference between the two is that a homepage is mostly used as an information page, while a weblog is used to communicate with other weblogs. Collaborative communities has sprung up on the Internet from this use, and provided for extended social networks between the participants. The users within these environments find each other through the writing of others, and with the use of hypertext links they are guided towards information of interest. This makes the weblogs good filters because they function as a sort of separator to find subjects of significance to the searcher on the Internet. The practical application of weblogs in all spheres of the Internet is exploding, and the use in relation to education are beginning to be described, but there is little research on blogs and blogging in relation to learning issues. It has been interesting to see how students adapted to the use of weblogs in relation to education.

The use of weblogs was evaluated in a course at the University of Bergen. The theoretical framework (chapter 2) that were chosen in relation to the weblog use were Computer Supported Collaborative Learning (CSCL) because this field emphasise theories that deal with how technology can reinforce group work and peer-interaction, and how collaboration and technology can simplify the process of knowledge sharing among group members (Lipponen, 2002). The weblog tool that were chosen for use in this educational setting was not developed in the capacity of being educational software, hence it is not based on a pedagogical foundation. In relation to this study, the students use were analysed with the use of the sociocultural perspective (chapter 2).

This thesis is part of the pre-project 'Collogatories: Collaborative Learning Communities on the Web', an InterMedia pre-project funded by ITU. The scenario and the subject under study were introduced in chapter 3, along with a thorough description of the weblog phenomena, its features, and the evaluated and chosen tool. Chapter 4 talk about related studies and place emphasis on research on blogs in education.

The research design chosen for this study is mainly qualitative, but some of the findings along the way has been introduced in the form of numbers and graphical representations and can therefore be said to be quantitative. This option was chosen in order to give a clear presentation of the organised material. In order to find some answers in relation to the students

use, the weblogs were monitored throughout the semester. Because of the time frame of this study, the final unit of analysis became seven students and their weblogs. The content in the blogs were analysed and interviews accomplished with the use of a general/semi structured interview guide. The choice of research design, the research focus, and the research questions can be read in chapter 5.

A presentation of each of the student's use of the weblogs, and their personal experience communicated through the interviews, were introduced in chapter 6, along with a summary and result of their use. These organised data were the foundation for the observations and discussion given in chapter 7.

Some of the main findings were:

- The interviewed students could be divided into three various user types
    - Minor user – suddenly stop in the use of system
    - Ordinary user – weblog updated monthly
    - Frequent user – weblog updated weekly

- The user types indicated the progression in the weblog through the semester

- The content in the weblogs could be divided into five various categories
    - Amusing – not related to the course, humorous content
    - Private – not related to the course, stories from everyday life
    - Course related – summaries of articles, descriptions of assignments
    - Discussions – discussions of themes related to the curriculum
    - Technical – use of the weblog system, problems and features

- The students wrote mostly about course related information, and least about what could be described as discussions.

- The students linked to articles read, PowerPoint presentations given during seminars, group members, or other students attending the course.

- The students were mainly not satisfied with their application of the weblog system, and there was not an equal explosion within this environment as seen on the Internet.

These findings were discussed in relation to the theoretical framework given for this study. Some problems that arise are questions to be asked according to the student's own experience, how they measure the success of the system? And how would the perfect use of the weblogs look like? Monitoring the weblogs the reality is that the students has utilized the system, everyone did start to publish posts in the beginning, and then some reduced their use, some stopped to write, and others continued to publish content throughout the semester. So how are the students measuring success? It is indicated that student's use of weblogs needs to be seen in relation to their habitual behaviour when it comes to the ways in which they approach the educational material, and that they hold on to 'old' approaches when learning new knowledge, read and listen instead of writing and talking. A question rising from this is that summaries or translations of articles can hardly be described as discussions that are necessary for knowledge building, or can they? What if the students see their repetition as knowledge when these facts are what they need to reproduce in a final examination? Another questions asked, and tried answered, is why should the use of the system be beneficial when the students meets daily?

In trying to answer why not all the students utilized the system, the answer given is that they may not see the advantages, if they find that their traditional working methods are sufficient. This leads to a question concerning how students would measure the success of collaboration? The probability is that they would not now if they were taking part in a collaborative learning situation if they compare their experience with their traditional educational working methods. If considering that there is a need for change, there is also a need to change the student's process when approaching educational material. Ending the discussion is the development phases given by SchoolBlogs.com, which can be used in relation to the use of weblogs in the classroom. These phases can also be advantageous in higher education when weblogs are put into practice.

There is also given high level implications, and feasible explanations, as seen by the author in this chapter.

8.1 Future Research

This study has given some indications when it comes to how students have adapted to the use of weblogs within a course at the University level. It would have been interesting to see how this use would have developed if the weblogs where introduced, as suggested in chapter seven, with the use of the three described developmental phases. It would have been motivating to follow an entire course and their exploitation throughout a semester, and in that way be able to see how this use would develop, and how, and if, it would differ from the use described in this thesis. Following every student in an entire course would also give more credibility when it comes to the findings.

In being able to indicate something about the learning efficiency with the use of technology, one could compare the use of weblogs in a course against a course that do not make use of technology and see if the learning outcome would be different in the two cases.

It would also been interesting to see if the student's use would have changed if they were able to use video within their blogs, so-called vogging, and if the use of media features would change their behaviour within the virtual environment. Or maybe introducing more technical features would see to that fewer students would have utilized the tool making it about technological interests.

Reference List

Applied Informatics and Distributed Systems Group. (1997, 22.04.97). *CSCW Computer Supported Cooperative Work*. Retrieved 16.09.03, 2003, from http://www.telekooperation.de/cscw/

Ashley, C. (2001). *Weblogging: Another kind of website*. Retrieved 7.aug, 2003, from http://istpub.berkeley.edu:4201/bcc/Fall2001/feat.weblogging.html

Atkinson, P., & Coffey, A. (1997). Analysing Documentary Realities. In D. Silverman (Ed.), *Qualitative Research, Theory, Method and Practice* (pp. 45-60): SAGE Publications.

Baker, M., Hansen, T., Joiner, R., & Traum, D. (1999). The Role of Grounding in Collaborative Learning Tasks. In P. Dillenbourg (Ed.), *Collaborative Learning Cognitive and Computational Approaches* (pp. 31-63): Pergamon.

Bakhtin, M. M. (1986). The Problem of Speech Genres. In C. Emerson & M. Holquist (Eds.), *Speech Genres & Other Late Essays*: Austin, TX: University of Texas Press.

Bannon, L. J. (1989). *Issues in Computer-Supported Collaborative Learning.*, Maratea, Italy.

Bannon, L. J., & Schmidt, K. (1991). CSCW: Four Characters in Search of a Context. In J. Bowers & S. Benford (Eds.), *Studies in Computer Supported Cooperative Work: Theory, Practice and Design.* (pp. 3-16): Amsterdam North-Holland.

Beck, R. J., Fitzgerald, W. J., & Pauksztat, B. (2003). Individual Behaviours and Social Structure in the Development of Communication Networks of Self-Organizing Online Discussion Groups. In B. Wasson, S. Ludvigsen & U. Hoppe (Eds.), *Designing for Change in Networked Learning Environments* (pp. 313-322): Kluwer Academic Publishers.

Bereiter, C. (2000). *Education and Mind in the Knowledge Age.*: Mahwah, NJ: Lawrence Elbaum Associates.

Bjørgen, I. (1997). Læringsreformer i den videregående skole. In O. Dysthe (Ed.), *Ulike perspektiv på læring og læringsforskning* (pp. 47-70): Cappelen Akademisk Forlag as.

Blood, R. (2000). *Weblogs: a history and perspective*. Retrieved 6.aug, 2003, from www.rebeccablood.net

Bruner, J. (1996). *The culture of education*: Cambridge, MA: Harvard University Press.

Burell, G., & Morgan, G. (1979). *Sociological Paradigms and Organisational Analysis*: Heinemann, London.

Center for New Media. (2003). *Donau-Universität Krems*. Retrieved 10.01.04, 2004, from http://www.donau-uni.ac.at/de/studium/fachabteilungen/tim/zentren/znm/news/index.php

Cuban, L. (1993). *How teachers taught*: New York: Teachers College Press.

Dagbladet. (2003). WEBLOGG, BLOGGING OG BLOGGERE?! *Dagbladet*.

de Jong, F. P. C. M., Veldhuis-Diermanse, E., & Lutgens, G. (2001). Computer-Supported Collaborative Learning In University and Vocational Education. In T. Koschmann, R. Hall & N. Miyake (Eds.), *CSCL2 Carrying Forward the Conversation* (pp. 111-128): Lawrence Erlbaum Associates.

Dembo, M. H., & McAuliffe, T. J. (1987). Effects of Perceived Ability and Grade Status on Social Interaction and Influence in Cooperative Groups. *Journal of Educational Psychology*(79), 415-423.

Dewey, J. (1933). *Democracy and Education. An introduction to the philosophy of education* (1966 ed.): New York: Free Press.

Dillenbourg, P. (1999a). Introduction: What Do You Mean By "Collaborative Lerning"? In P. Dillenbourg (Ed.), *Collaborative Learning Cognitive and Computational Approaches* (pp. 1-19): Pergamon, Earli.

Dillenbourg, P. (1999b). What do you mean by "collaborative learning"? In P. Dillenbourg (Ed.), *Collaborative-learning: Cognitive and Computational Approaches* (pp. 1-19): Oxford: Elsevier.

Dillenbourg, P., Baker, M., Blaye, A., & O'Malley, C. (1996). The evolution of research on collaborative learning. In E. Spada & P. Reiman (Eds.), *Learning in Humans and Machine: Towards an interdisciplinary learning science.* (pp. 189-211): Oxford: Elsevier.

Donald, M. (1991). *Origins of the modern mind: Three stages in the evolution of culture and cognition.*: Cambridge, MA: Harvard University Press.

Dysthe, O. (1997a). "Læring gjennom dialog" - kva inneber det i høgare utdanning? In O. Dysthe (Ed.), *Ulike perspektiv på læring og læringsforskning* (2 ed., pp. 105-135): Cappelen Akademisk Forlag as.

Dysthe, O. (1997b). *Ulike perspektiv på læring og læringsforskning* (2 ed.): Cappelen Akademisk Forlag as.

Efimova. (2003). *Blogs: the stickiness factor.* Paper presented at the BlogTalk, Vienna, Austria.

Ellis, C. A., Gibbs, A. S. J., & Rein, A. G. L. (1991). Groupware: Some Issues and Experiences. *Readings in groupware and computer- supported cooperative work, assisting human-human collaboration, Communications of the ACM vol.34, no.1, 1991*, 38-58.

Engstrøm, Y. (1987). *Learning by Expanding: An Activity - Theoretical Approach to developmental Research*: Helsinki: Orienta-Konsultit.

Frankfort-Nachmias, C., & Nachmias, D. (2000). *Research Methods In The Social Sciences* (Sixth ed.): Worth Publishers.

Grudin, J. (1994). CSCW: History and Focus. *IEEE, Computer 27*, 19-26.

Grüters-Eiken. (2003). *Weblog som pedagogisk nettverktøy i et dannelsesperspektiv*: NTNU.

Grønmo, S. (1982). Forholdet mellom kvalitative og kvantitative tilnærminger i samfunnsforskningen. In H. Holter & R. Kalleberg (Eds.), *Kvalitative metoder i samfunnsforskning*: Universitetsforlagets Metodebibliotek.

Guribye, F. (2000). Conceptual Framework for Evaluations. In B. Wasson, F. Guribye & A. Mørch (Eds.), *Project DoCTA* (pp. 41-58): Unipub forlag.

Guribye, F., & Wasson, B. (2002). *The Ethnography of Distributed Collaborative Learning: Foundations for a CSCL Community.* Paper presented at the CSCL 2002, Boulder, Colerado, USA.

Guzdial, M., & Turns, J. (2000). Effective discussion through a computer-mediated anchored forum. *Journal of the Learning Sciences*(9), 437-470.

Hakkarainen, K., Lipponen, L., & Järvelä, S. (2001). Epistemology of Inquiry and Computer-Supported Collaborative Learning. In T. Koschmann, R. Hall & N. Miyake (Eds.), *CSCL 2 Carrying Forward the Conversation*: Lawrence Erlbaum Associates, Inc. London.

Hammersley, M., & Atkinson, p. (1996). *Feltmetodikk* (2 ed.): Oslo: Ad Notam Gyldendal.

Hannemann, R. A. (2001). *Introduction to Social Network Methods*: Hannemann, Internet.

Hansen, T., Dirckinck-Holmfeld, L., Lewis, R., & Rugelj, J. (1999). Using Telematics for Collaborative Knowledge Construction. In P. Dillenbourg (Ed.), *Collaborative Learning Cognitive and Computational Approaches* (1 ed., pp. 169-196): Pergamon.

Helstrup, T. (1997). Oversikt over ulike retninger innen læring og læringsforskning, med vekt på kognitiv psykologi. In O. Dysthe (Ed.), *Ulike perspektiv på læring og læringsforskning* (pp. 22-46): Cappelen Akademisk Forlag as.

Hewitt, J., & Teplovs, C. (1999). An analysis of growth patterns in computer conferencing threads. In C. Hoadley & J. Roschelle (Eds.), *Proceedings of the Third International Conference on Computer Supported Collaborative Learning (CSCL'99)* (pp. 232-241): Mahwah, NJ: Lawrence Erlbaum.

Holstein, J. A., & Gubrium, J. F. (1997). Active Interviewing. In D. Silverman (Ed.), *Qualitative Research, Theory, Method and Practice* (pp. 113-129): SAGE Publications.

ITU. (2003). *Om ITU*. Retrieved 23.10.03, 2003, from http://www.itu.no/Organisasjoner/itu

Johnson, D. W., & Johnson, R. T. (1989). *Cooperation and Competition: Theory and research*: Edina, MN: Interaction Book Company.

Kerr, N. L. (1983). Motivation losses in small groups: A social dilemma analysis. *Journal of Personality and Social Psychology*(45), 819-828.

Kerr, N. L., & Bruun, S. E. (1983). Dispensability of member effort and group motivation losses: Free rider effects. *Journal of Personality and Social Psychology*(44), 78-94.

Kirk, J., & Miller, M. L. (1986). *Reliability and Validity in Qualitative Research*: SAGE Publication.

Kolodner, J., & Guzdial, M. (1996). Effects with and of CSCL: Tracking learning in a new paradigm. In T. Koschmann (Ed.), *CSCL : theory and practice of an emerging paradigm* (pp. 307-320): Lawrence Erlbaum Associates, Inc. London.

Koschmann, T. (1996). *CSCL : theory and practice of an emerging paradigm*. Mahwah, N.J.: Lawrence Erlbaum Associates, Inc. London.

Koschmann, T., Kelson, A. C., Feltovich, P. J., & Barrows, H. S. (1996). Computer-Supported Problem-Based Learning: A Principled Approach to the Use of Computers in Collaborative Learning. In T. Koschmann (Ed.), *CSCL: Theory and Practice of an Emerging Paradigm* (pp. 83-124). Mahwah, New Jersey: Lawrence Erlbaum Associates, Publishers.

Kozma, R. B. (1999). *Students collaborating with computer models and physical experiments.* Paper presented at the CSCL1999, Palo Alto, California.

Lawley, L. (2003). *It's done!* Retrieved 10.01.04, 2004, from http://www.it.rit.edu/~ell/blogresearch/archives/000329.php

Lehtinen, E., Hakkarainen, K., Lipponen, L., Rahikainen, M., & Muukkonen, H. (1999). *Computer Supported Collaborative Learning: A Review* (Report): University of Turku, University of Helsinki.

Lipponen, L. (2000). Towards knowledge building discourse: From facts to explanations in primary students' computer mediate discourse. *Learning Environments Research*(3), 179-199.

Lipponen, L. (2002). *Exploring foundations for computer-supported collaborative learning.* Paper presented at the CSCL, 2002., Boulder, Colorado, USA.

Ludvigsen, S., & Mørch, A. (2003). Categorisation in Knowledge Building. In B. Wasson, S. Ludvigsen & U. Hoppe (Eds.), *Designing for Change in Networked Learning Environments. Proceedings of the 6th International Conference on Computer Support for Collaborative Learning (CSCL2003)* (pp. 67-76): Dordrecht: Kluwer.

Luthans, F., & Davis, T. R. V. (1982). *An Idiographic Approach to Organizational Behavior Research: The Use of Single Case Experimental Designs and Direct Measures," (7:3)*: Academy of Management Review.

Maturana, H. R., & Varela, F. J. (1992). *The Tree of Knowledge, the biological roots of human understanding* (Rev. ed.): Boston: Shambala Publications.

May, T. (1997). *Social Research, Issues, Methods and Process* (2 ed.): Open University Press.

Merlot International Conference. (2003). *Syndicating Learning Objects with RSS and Trackback*. Retrieved 23.10.03, 2003, from http://www.mcli.dist.maricopa.edu/show/merlot03/

Morey, N. C., & Luthans, F. (1984). *"An Emic Perspective and Ethnoscience Methods for Organizational Research,"* Academy of Management Review (9:1).

Mortensen, T., & Walker, J. (2002). *Blogging Thoughts* (No. 3/2002). Oslo: InterMedia.

Myers, M. D. (1997, 15.09.03). *"Qualitative Research in Information Systems" (21:20)*. Retrieved 16.12.03, 2003

Nurmela, K., Palonen, T., Lehtinen, E., & Hakkarainen, K. (2003). Developing Tools For Analysing CSCL Processes. In B. Wasson, S. Ludvigsen & U. Hoppe (Eds.), *Designing for Change in Networked Learning Environments* (pp. 333-342): Kluwer Academic Publishers.

Oldervoll, J. (1997). Absalon-prosjektet - datastøtta læring (DSL) ved Historisk institutt. In O. Dysthe (Ed.), *Ulike perspektiv på læring og læringsforskning* (2 ed., pp. 227-240): Cappelen Akademisk Forlag as.

Papert, S. (1980). *Mindstorms*: New York: Basic Books.

Paquet, S. (2003a). *Personal knowledge publishing and its uses in research (1/2)*. Retrieved 7.aug, 2003, from http://radio.weblogs.com/0110772/stories/2002/10/03/personalKnowledgePublishingAndItsUsesInResearch.html

Paquet, S. (2003b). *Personal Knowledge publishing and its uses in research (2/2)*. Retrieved 7.aug, 2003, from http://radio.weblogs.com/0110772/stories/2002/10/03/personalKnowledgePublishingAndItsUsesInResearch.html#pkp

Patton, M. Q. (1987). *How to Use Qualitative Methods in Evaluation* (2 ed.): Sage Publication, International Educational and Professional Publisher.

Patton, M. Q. (2002). *Qualitative Research & Evaluation Methods* (3 ed.): Sage Publication, International Educational and Professional Publisher.

Peräkylä, A. (1997). Reliability and Validity in Research Based on Tapes and Transcripts. In D. Silverman (Ed.), *Qualitative Research, Theory, Method and Practice* (pp. 201-220): Sage Publication, International Educational and Professional Publisher.

Piaget, J., & Inhelder, B. (1969). *The Psychology of the Child*: London: Routledge & Kegan Paul.

Remenyi, D., Williams, B., Money, A., & Swartz, E. (2002). Philosophical Background to Research. In *Doing Research in Business and Management An Introduction to Process and Method*: SAGE Publications.

Rommetveit, R. (1997). Læring gjennom dialog. In O. Dysthe (Ed.), *Ulike perspektiv på læring og læringsforskning* (pp. 88-104): Cappelen Akademisk Forlag as.

Roness, T. E. H. (2003). *Koordinering og bruk av læringsressurser i et kollaborativt læringsmiljø*. Unpublished Hovedfag, University of Bergen, Bergen.

Salomon, G. (1992). What does the design of effective CSCL require and how do we study its effects? *SIGCUE Outlook, Special Issue on CSCL*(21(3)), 62-68.

Salomon, G., & Globerson, T. (1987). The Computer as a Zone of Proximal Development - Internalizing Reading Related Metacognitions from a Reading Partner. *Journal of Educational Psychology*(84), 51-68.

Scardamalia, M., & Bereiter, C. (1991). Higher levels of agency for children in knowledge building: A challenge the design of new knowledge media. *The Journal of The Learning Sciences*(1), 37-68.

Scardamalia, M., & Bereiter, C. (1996). Computer Support For Knowledge-Building Communities. In T. Koschmann (Ed.), *CSCL: Theory and Practice of an Emerging Paradigm* (pp. 249-268): Lawrence Erlbaum Associates, Publishers.

Schofield, J. W. (1995). *Computers and Classroom Culture*: Cambridge, MA: Cambridge University Press.

Silverman, D. (1993). *Interpreting Qualitative Data: Methods for Analysing Talk, Text and Interaction*: SAGE Publication.

Silverman, D. (1997). *Qualitative Research, Theory, Method and Practice*: SAGE Publications.

Soloway, E., Jackson, S. L., Klein, J., Quintana, C., Reed, J., Spitulnik, J., et al. (1996). Learning Theory in Practice: Case Studies of Learner-Centered Design. 189-196.

Stahl, G. (2002a). *Contributions to a Theoretical Framework for CSCL.* Paper presented at the CSCL, 2002., Boulder, Colorado, USA.

Stahl, G. (2002b). *Introduction: Foundations For a CSCL Community.* Paper presented at the CSCL 2002, Boulder, Colorado, USA.

Stahl, G. (2002c). Rediscovering CSCL. In T. Koschmann, R. Hall & N. Miyake (Eds.), *CSCL 2 Carrying Forward the Conversation* (pp. 169-181): Lawrence Erlbaum Associates, Publishers.

Stahl, G., Herrmann, T., & Carell, A. (2003). Concepts of Communication in CSCL. In J. Haake (Ed.), *Kommunikationskonzepte*.

Säljö, R. (2001). *Læring i praksis. Et sosiokulturelt perspektiv.*: Cappelen Akademiske Forlag.

Vygotsky, L. S. (1978). *Mind in society : the development of higher psychological processes*: Cambridge, Mass. Harvard University Press.

Wasson, B. (2000). Theoretical Foundations. In B. Wasson, F. Guribye & A. Mørch (Eds.), *Project DoCTA*: Unipub forlag.

Wasson, B., & Baggetun, R. (2003). *Søknadskjema forprosjekt digitale læringsarenaer* (Projectproposal). Bergen: InterMedia, University of Bergen.

Wasson, B., Baggetun, R., & Andersen, K. H. (2003). *Collogatories: Collaborative Learning communities on the Web* (Pre-Project Final Report, ITU Learning Arenas). Bergen: InterMedia, UiB.

Wertsch, J. V., del Río, P., & Alvarez, A. (1995). *Sociocultural Studies of Mind*: Cambridge, MA: Cambridge University Press.

Winer. (2003). *Weblogs at Harvard Law*. Retrieved 10.01.04, 2004, from http://blogs.law.harvard.edu/about

Wrede. (2003a). *Ausgangslage der FH-Aachen: Kurzdokumentation laufender E-Learning Projekte*. Vienna: Aachen University of Applied Sciences, Department of Design.

Wrede. (2003b). *Weblogs and Discourse.* Paper presented at the Blogtalk, Vienna, Austria.

Yin, R. K. (1994). *Case Study Research Design and Methods* (2 ed. Vol. 5): Sage Publications.

Øvrebø, O. A. (2002). Webloggens ville vekst. *Morgenbladet*.

Appendix A

Features in the Movable Type System

Data Storage – The system supports both MySQL and Berkeley DB for data storage

XML-RPC API – Implements the blogger and MetaWeblog XML-RPC APIs, allowing the user to make use of existing client tools (BlogBuddy, Bloggar, BlogApp, etc) to manage the weblog.

Extensible, library-driven code – Custom dynamic applications can be written using the Movable Type libraries. Requires experience with programming in Perl.

TracBack – The TracBack system allows peer-to-peer communication and conversations between weblogs.

XHTML/CSS Compliance – Movable Type's default templates produce accessible, standards-compliant (XHTML/CSS) pages for the weblog.

Localization – The Movable Type interface is available in multiple languages, on a per-author setting.

Public Search Engine – Visitors to the weblog can use the built in search engine to find entries with a diversity of customisation options.

Support – The support forums are staffed by both a dedicated set of Movable Type users and the creators of the software, allowing quick access to answers from expert users of the system.

Import data – permits import of entries and comments from other content management systems (Blogger, GreyMatter, newsPro), these post can be managed through Movable Type.

Multiple output templates – enables one-click publishing to multiple destinations and formats: XML RSS headlines from your site, HTML indexes, etc.

Support for multiple weblogs – one Movable Type installation can support as many weblogs as wanted.

Support for multiple authors – register multiple authors, and set their access levels using Movable Type's role based permission system.

Entry categorization – entries can be grouped into categories for private references, for archiving purposes, and for display in the weblog. Multiple categories can be assigned to a single entry.

Search and replace – time can be saved by performing a global search and replace all entries; the search feature can be used to look up a particular entry.

Multiple archiving options – monthly, weekly, and daily archives of your content can be created; individual pages for each entry; and archives by category. Archive file names are customisable, and multiple archive templates can be associated with each archive type, allowing the creation of several versions of the archives.

Built-in comment system – allow visitors to post comments in the weblogs entries and engage in conversations. Movable Type supports comments either inline in the weblog, or in popup windows; you can also selectively exclude comments on certain posts.

Comment IP Banning – lock out unwanted visitors from commenting on the site by banning their IP addresses.

Email notification system – maintain lists of users to whom notification messages can be sent when a new entry is posted.

Integration of file and image uploads – upload files and images into any of the weblog directories, then seamlessly integrate them into new posts.

Thumbnail creation – automatically creates thumbnails from uploaded images.

Bookmarklets – the site can be posted to from anywhere on the web, without entering the Movable Type system.

Template-based site customisation – combine Movable Type's template tags with standard HTML (or other markup languages) to build and customise the site.

Pre-date or post-date entries – Movable Type allow you to override an entry's date stamp.

Delete entries – Movable Type allow true entry deletion, this makes it possible to clean out old or unwanted entries.

Hold/Release status – allow for content editorial and approval by setting entries to "Hold", later an editor approve by marketing "Release", at which point the entries will be published on the site.

Publicity and notification – sends XML-RPC pings to weblogs.com, blo.gs, and the movabletype.org Recently Updated list.

Mail this entry –visitors to your site can mail your entries to friends, driving traffic to your site.
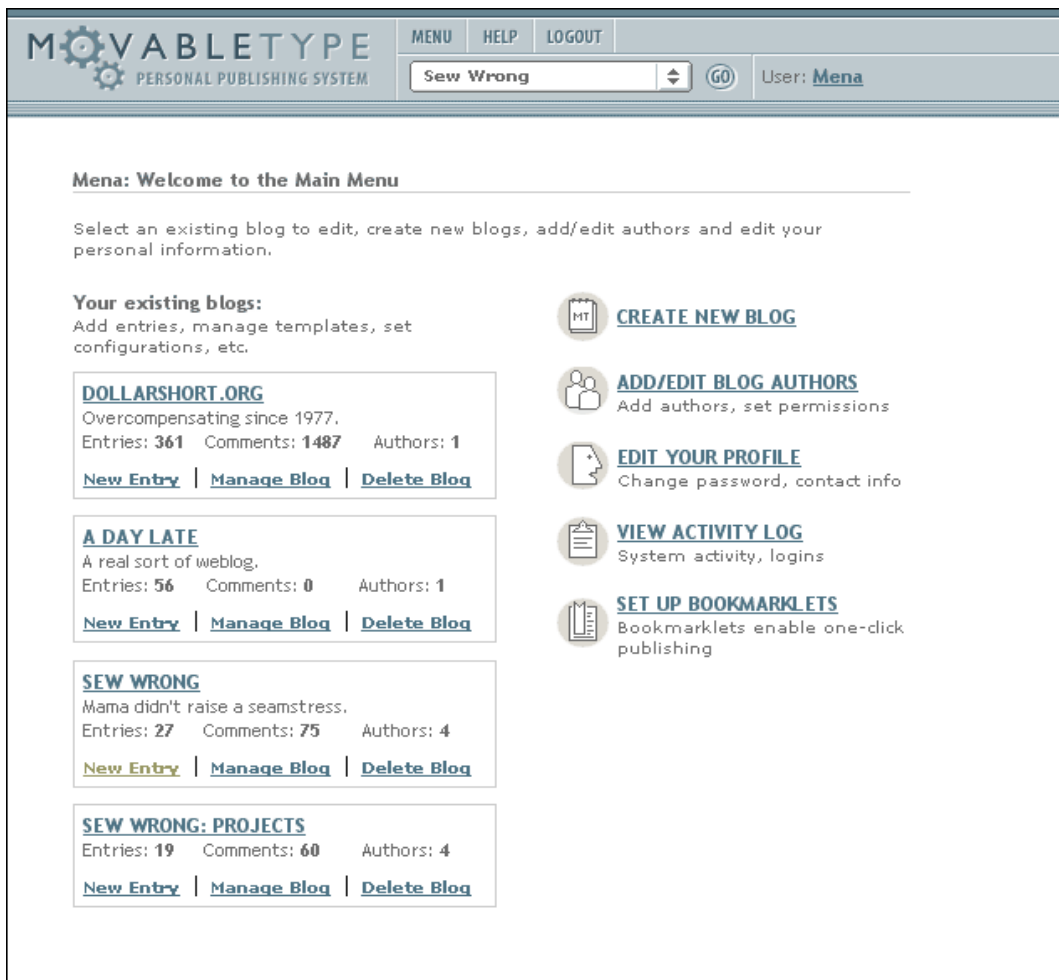
Fig.1
Main Menu
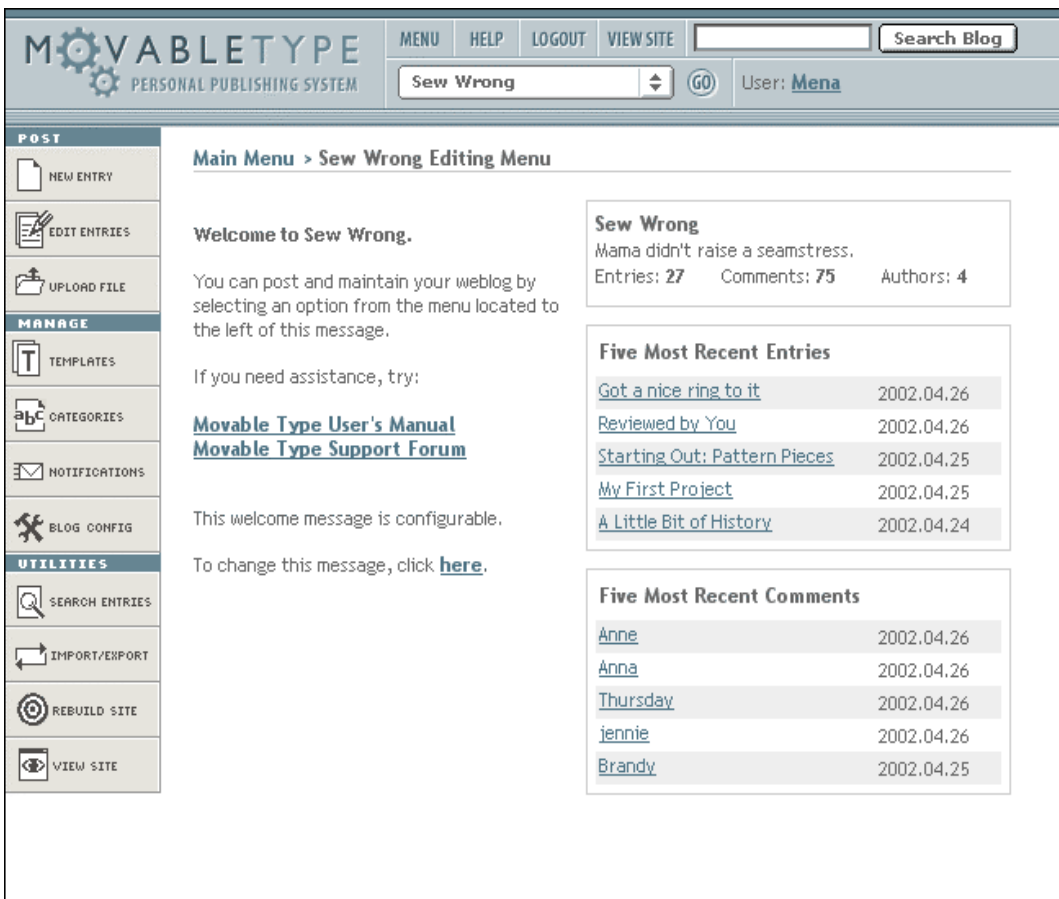
Fig.2
Blog Menu
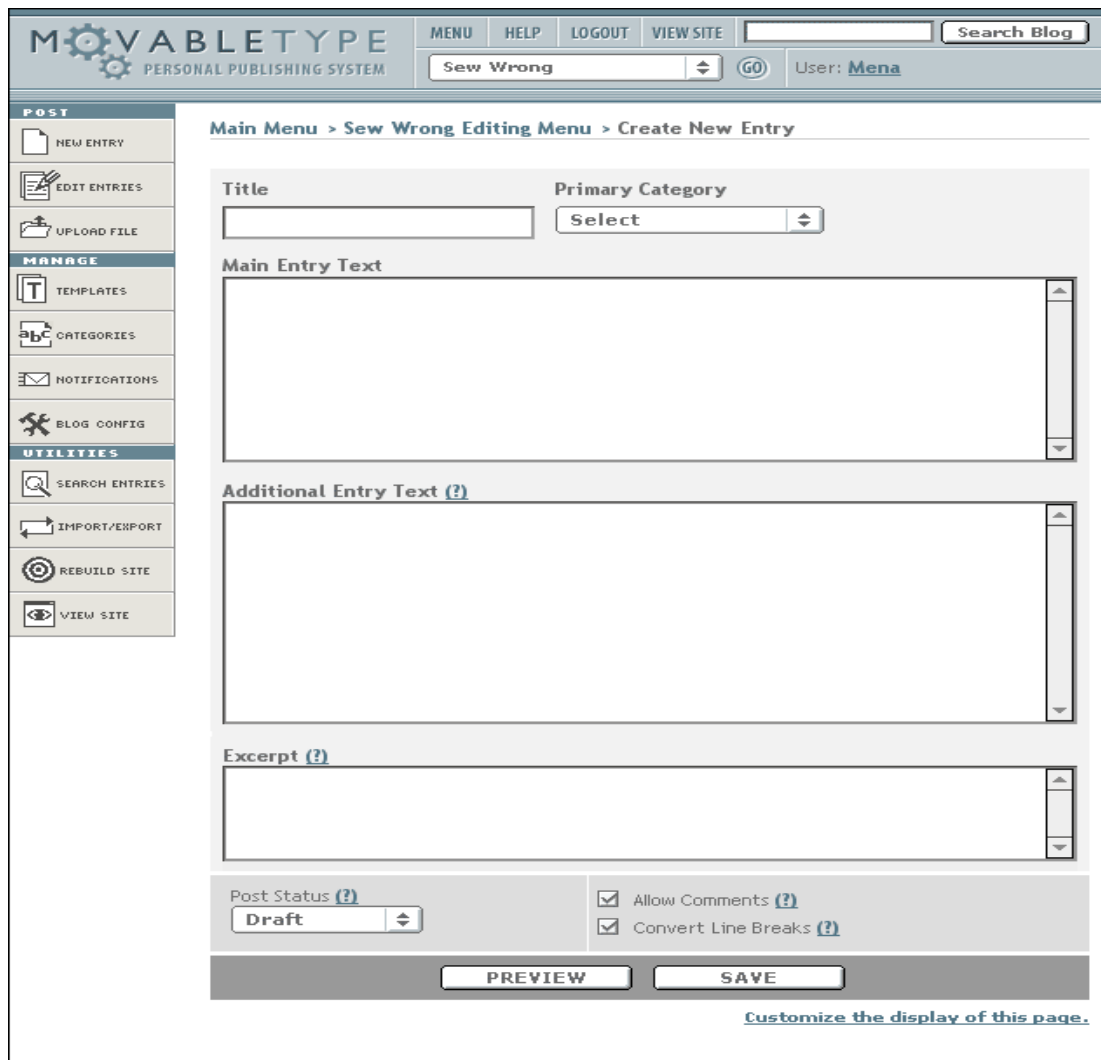
Fig.3
New Entry
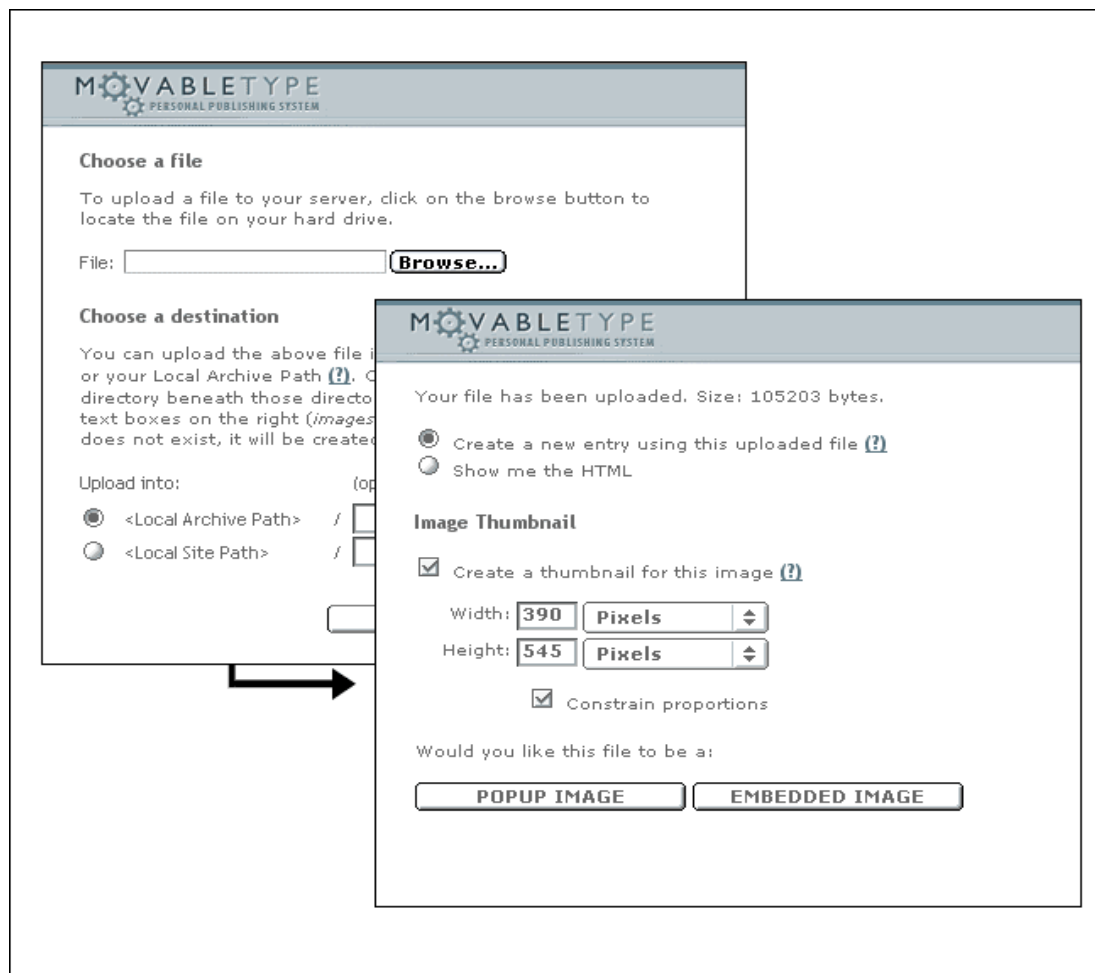
Fig.4
Upload File

Appendix B

Norwegian/English Translation

Web design & Web aesthetics

This appendix shows the original content in the weblogs used as examples in relation to the Web design and Web aesthetics course. The translated examples are introduced along with the original Norwegian text in order to be able to compare the two. The blue underlined text indicates hypertext links.

February 27

Faces and Names

Cathrine is having a party tomorrow (if you weren't attending the lecture today you can get the number from one of your fellow students). And there is other ways to get to know each other to. Lisa wrote the other day that "Yesterday when I was attending class I suddenly found it sad that I know most of the names of my fellow students, read their blogs, without knowing their faces in class" Lisa is suggesting pictures in the blogs, and has now a picture of herself in her blog (great banner by the way!) Others that want to do this?

Posted by lecturer at 04:55EM | Comments (0) | TrackBack

---

1. Figure 20, English translation

February 27

Ansikter og Navn

Det er fest i morgen, hos Cathrine (om du ikke var på forelesningen i dag kan en medstudent gi deg telefonnummeret). Og det er andre måter å bli kjent på også. Lisa skrev forleden at

I går da jeg satt på forelesningen, syntes jeg plutselig det er så trist at jeg kan navnene på de fleste i klassen, og leser bloggene deres, uten å kjenne igjen ansiktene deres i timene."

Lisa foreslår bilder i bloggene, og har lagt inn bilde selv (stilig banner, forresten!) Flere som har lyst?

Posted by lecturer at 04:55EM | Comments (0) | TrackBack

---

1. Norwegian original

March 27

Ahierarchy

Today we were looking at websites that is edified ahierarchic. I looked at Tor Åge Bringsværds dictionary novel "Hell. They have lowered the ceiling again" from 1971. You could read it in two versions, a small one, which pops up as a small window, and in regular html format. This site is based on an already publicised short story. The point is that you get through the story by links.

Posted by Lisa at 06:28EM | Comments (1) | TrackBack

2. Figure 21, English translation

March 27

Ahierarki

I dag skulle vi titte på nettsteder som er ahierarkisk oppbygget.

Jeg så på ordboknovelle Tor Åge Bringsværds "Faen. Nå har de senket takhøyden igjen" fra 1971. Man kunne lese den i to utgaver: liten utgave som popper opp som et lite vindu, og vanlig html.

Denne siden er basert på en allerede utgitt novelle i bokform. Det hele går ut på at man via stikkord som også er lenker, kommer "videre" i novellen.

Posted by Lisa at 06:28EM | Comments (1) | TrackBack

2. Norwegian original

March 28

Unhierarchic Websites

Today in 105 we had group work about Unhierarchic Websites, my group got a site regarding moles "moles, a web narrative", one could read about important aspects in a woman's life with her moles as kind of a red thread between the different episodes…

Posted by Ole at 03:34 PM | Comments (0) | TrackBack

3. Figure 22, English translation

March 28

Uhierarkiske Websider

I dag på 105 hadde vi gruppearbeid om uhierarkiske websider, gruppen min fikk en side som gikk rundt fregner "moles, a web narrative", man kunne lese om viktige momenter i en kvinne sitt liv med fregnene hennes som en slags rød linje mellom de forskjellige episodene.

Posted by Ole at 03:34 PM | Comments (0) | TrackBack

3. Norwegian original

January 30

My Firs Blog

Putting up this blog is some of the most boring things I have ever done in a long time. In addition the site looks terrible ugly! I don't understand why anyone should bother reading this. Even less how I'm suppose to benefit from writing my thoughts regarding the course here. Except the needed 1500 word I need to get permission to take my exam.

Posted by Helen at January 30, 2003 07:15 EM

4. Figure 23, English translation

Januar 30

Å sette opp denne bloggen er noe av det kjedeligste jeg har gjort på lenge. Dessuten ble siden min ufattelig stygg! Ikke skjønner jeg hvorfor noen skal gidde å lese dette. Langt mindre hvordan jeg skal få noe nytte av å skrive mine tanker om faget her. Bortsett fra at jeg er nødt til å ha 1500 ord her for å få lov til å gå opp til eksamen.

Posted by Helen at Januar 30, 2003 07:15 EM

4. Norwegian original

> **March 20**
>
> **Girls and Data**
>
> Ole writes about girls vs. boys in the data world. Have wondered if I should write about quota systems within data studies. I've heard that at NTNU with its succeeded "girls and data" project was less successful because of a leap in competence within the classes.
>
> Posted by Lene at 01:45 PM | Comments (3) | TrackBack

5. Figure 24, English translation

> Mars 20
>
> Jenter og data
>
> Ole skriver litt om jenter vs gutter i dataverdenen. Har pønsket litt på å skrive om kvotering av jenter på datastudier. Jeg hørte en eller annen gang at på NTNU, som hadde sitt relativt vellykkede "jenter og data"-prosjekt så var et mindre vellykket resultat at det ble enorme sprang i kompetanse innad i klassene.
>
> Posted by Lene at 01:45 PM | Comments (3) | TrackBack

5. Norwegian original

Appendix C

Interview Guide

Female

Male

Age

Background Information

- Subjects taken at the University of Bergen (Main theme in education)
- Subjects taken at other institutions
- Wishes to stay anonymous in this inquiry (yes/no)
    - Can use first name (yes/no)
- Extracts from persons weblog can be used as example in thesis (yes/no)

Experience/Behaviour

- How often is your weblog updated?
- Is your weblog updated because it is mandatory?
- Is your weblog updated because of self motivation?
- Is your weblog updated on behalf of wishes by lecturer?

Experience/Behaviour & Opinion/Belief

- What do you write about in your weblog?
    - Scientific or personal matters?
- What do you write most frequent about in your weblog?
    - Why is the content scientific?
    - Why is the content personal?
- What do you think you got out of using the weblog through the course?
- Do you think your scientific profit increased as opposed to if you did not make use of the weblog?

Experience/Behaviour & Opinion/Belief

- Do you read your fellow students weblogs?
    - Why do you read your fellow students weblogs? (expectation/ desirable)
- Is the author of the weblogs you read well known or unacquainted? (elaborate)
- Do you comment in your fellow students weblogs?
    - What do you comment on, or why do you not leave comments?
- Do you read weblogs that are not in connection to the course (INFO352)?
- Do you comment in weblogs that are not in connection to the course (INFO352)?

Experience/Behaviour & Opinion/Belief

- What do you link to in your weblog?
    - Why do you link to this information?
- Do you make use of links in other weblogs?
- Do you create links to other weblogs in your own weblog?

Experience/Behaviour & Opinion/Belief

- Are you a blogger?
- Do you feel you have become part of a community/culture?
- Do you feel like you have created a culture?
- Would you blog if it was not related to the course (info352)?
- Will you continue to blog after the course has ended?
- What are your general impressions?
- How would you summarize your experience?

Appendix D

Overview Over Student's Weblogs

This appendix gives an overview over the original postings in the interviewed students weblogs. The blue and underlined text indicates that this is a hypertext link.

Interview Subject 1 – Jonas

This student starts to write in the beginning of February, after the introduction of the weblogs in relation to the course. The first post written in the weblog is meant to get the student started with the use of the system, and the post show signs of optimism and the will to work. In addition is the writing faced outwards ("in order to contribute"), and the language can be said to be narrative (post.1). The student round off this first post with a report from an attended seminar that day.

Starten (04.Feb)

Etter å ha delteke i seminar i INFO352 i dag og i går, føler eg meg mykje klokare...

For å teste ut, og for å bidra litt, vil eg no legge ut litt kort om det eg fekk med meg frå kurset i dag. Dette er meint som øving slik at eg ska koma i gang med å skriva meir enn det eg har gjort til no. Eg kom litt seint, men her er litt av det eg har: (referat seminar)

Posted by Jonas at 04:08 PM | Comments (0)

Post 1: Report from what the student has done this particular day

The posts that are produced during this first month are mainly focusing on the scientific subjects in relation to the course. The next amendment is written 2 weeks later in relation to an assignment given by lecturer, and the student has been diving into the world of weblogging (post.2).

Assignment 1 (17.Feb)

Skulle du sett...

Etter å ha surfa gjennom fleire av linkane til oppgåva vår, har eg fått konstatert at blogging er ei svær greie. Utsagnet: "after kblogging (knowledge management blogging), moblogging is the next trend. What happen when blogs go mobile ?", gjev løfter om meir...

Posted by Jonas at 02:56 PM | Comments (0)

Post 2: Discovering the world of weblogs

The content in the posts the next few days are in connection to the use of weblogs, how to make hypertext links, the use of blogrolls etc. The writing is indicating that the student is trying to use the weblog in relation to assignments, and he is creating links to information in relation to information written about.

The first comment appearing in the weblog is in relation to information regarding an upcoming presentation of an article, which is in connection to the curriculum. The student is discussing similarities between StarTrek and the use of technology and has received a comment on his thoughts concerning the subject (comment.1).

Comments: Utan ein tråd (23.Feb)

Fjorårets HCI-studier hadde mange eksempler på at god gammel science fiction ikke nødvendigvis er fri fantasi og intet annet, men knyttet til problemstillinger og teknologier som kan bli rimelig aktuelle etterhvert.

Så gjenstår det bare å pønske ut en måte å gjøre alle disse "ubiquitous computers" til potensielt dødbringende våpen...

Posted by Ivar at February 24, 2003 11:43 AM

Comment 1: Comment on the use of technology vs. StarTrek

The next post is a long report describing a framework used when analysing articles within Information System Architecture. The students is in this relation using the weblog as a log, not intended on other students (post.3), the content is also in relation to a different course that this student is attending.

Rammeverket (27.Feb)

Denne postinga er mest for meg sjølv. Legg dette ut her slik at han er tilgjengeleg for meg når eg er ute på tur. Postinga beskriv det rammeverket me blir oppmoda om å bruka når me analyserer artiklar innan ISA området:

Posted by Jonas at 10:49 PM | Comments (0) | TrackBack

Post 3: Content relevant for the user, not in relation to the course of analysis

The last post written in February deal with problems regarding difficulties with the English academic language. The editor is referring to a specific quotation from an article, and invites

other students to contribute with their version in Norwegian in order to come up with an accurate interpretation (post.4).

Utfordring (28.Feb)

Sit og arbeider med presentasjonen av kap 12 i CSCL2 no og det er ein ting som slår meg. Det skulle vert gjort ein analyse av denne teksten, spesielt av den siste kommentaren, som god meiningsformidlar!!

Det er fleire setningar eg faktisk må nytta bort i mot 30 min for å forstå. Ein av desse er den som følgjer under. Eg har gjort meg opp ei meining om korleis eg skal tolka han, men er ute etter andre si meining: (ref.sitat)

Posted by Jonas at 09:03 PM | Comments (2) | TrackBack

Post 4: Requesting analytical suggestions from other students

The requested response is replied with 2 comments from other students attending the course, both of them gives a complete translation of the quotation from the respective article (comment 2).

Comments: Utfordring

Jeg må le av disse folkene. Forskjell på liv og lære hos enkelte, ja.

Omtrent sånn leser jeg sitatet (på norsk):

"Så lenge setninger av en så lang og komplisert type som denne utgjør standarden i lærebøker, kan det neppe være tvil om at …"

Posted by Ivar at March 1, 2003 02:09 AM

Comments: Utfordring

"Etter å ha fundert over vårt første tokt inn i mobilt bruk av datamaskin, samt blitt stukket av Nardis anbefaling om å 'grave dypere' har vi anlagt en mer 'spørrende holdning', og holder…"

Posted by Henrik at March 2, 2003 12:11 AM

Comment 2: Replies on the requested analytical suggestion

The content in the weblog is starting to change when entering March, and there are only 2 posts published through the entire month. The first post is about social activities that has been accomplished during the day, the second post is talk around technical problems with the

weblog, and a postponement of the first mandatory assignment. The thoughts around this delay are related to theories discussed in relation to the curriculum – behaviourism.

The student also gives a reason for the next to nothing postings during the month, the mandatory assignment. In addition there is made reference to research that has indicated this correlation between the use of technology and being occupied with written assignments ("I think") (post 5).

Heimanfrå (26.March)

Det er no lenge sidan eg har blogga noko som helst. Når eg held på med oppgåver på universitetet er det som om alt anna forsvinn litt. Hukser ikkje helit, men eg trur dette stemmer overeins med det tidlegare forskning på bruk av liknane system viser (fordjuping -->lite aktivitet på bloggen).

Posted by Jonas at <u>11:15 AM</u> | <u>Comments (3)</u> | <u>TrackBack</u>

Post 5: Reasons for the next to nothing postings the last month

The respondents on this post are given by 2 students and 1 by the lecturer. The first is giving advice in relation to the technical problems (comment 3), the lecturer is commenting on the thoughts regarding the behaviourism (comment 4), and the last response is not related to the content in the post in any way (comment 5).

Comments: Heimanfrå

Heeey di.

Kanskje det er skjedd noe med visningen i brownseren? jeg kan nemmelig se linkene dine, men de har flyttet seg ned i venstre hjørnet på siden og dette er i Netscape, har ikke sjekket Opera eller Explorer.

Posted by <u>Trine</u> at March 26, 2003 06:11 PM

Comments: Heimanfrå

Jo, kanskje et lite snev av behaviorisme hvis du tenker på at avtalen er det at dere får en belønning (utsettelse på oppgave) mot at dere forbereder godt til den 4 april. Men er det noe galt med det, tja ikkje vet eg ?

Posted by <u>Lecturer</u> at April 4, 2003 12:21 AM

Comment 3: Advice in relation to technical problem
Comment 4: Reply from the lecturer

Comment 5: Comment from a reader that has nothing to do with the post itself

The activity in the weblog is catching up in April, starting out with content relevant to scientific material. The first post is a "copy and paste" conversation between the editor and a fellow student that has been taking place in "messenger". The discussion is dealing with the behaviourism and the behaviouristic perspective on knowledge – no comments has been entered in relation to this discussion.

The next post is dealing with the aspects of collaboration, and the student is talking about the advantages of sharing information. Inspired by this, he has made hypertext links to a site that is explaining the difference between constructivism and constructionism, which are both theories relevant in relation to the curriculum. There is also a reference to the student that shared this site with him, and an invitation to other students that they should all keep on sharing information ("I encourage all to...") (post 6).

Post 6: Student is encouraging collaboration

The rest of the content in April is of the social kind. The student is talking about his family (post 7), and a fellow student that is making music that has requested that there would be talk of this in the weblog, there are also created hypertext links to some of this work (post 8). There are no comments given in any of the posts from April.

Familie på faget (27.April)

Dette er systera mi. Ho går på mellomfag no og slit med innspurt på semesteroppgåve i database. Hadde eigentleg tenkt å legge link til sida hennar i blogrollen min, men asj...då må eg inn på blogroll.com å fikse.

Posted by Jonas at 02:48 PM | Comments (0) | TrackBack

Post 7: The student is talking about his sister

Khake (30.April)

Kjetil på faget lager musikk på datamaskinen sin og no vil han at eg skal ha lenker til denne suverene kunsten på mi side. På NRK sine urørt sider ligg det tre låter, og på mp3 ligg det tre til. Eg har diverre ikkje sjekka ut musikken hans på lenge, men dersom det er noko likt det han laga for nokre år sidan, er det morosame greier. Sjekk det ut!!!

Posted by Jonas at 11:33 AM | Comments (0) | TrackBack

Post 8: Encouraging people to visit sites that has music produced by a fellow student

Summarizing students use of the weblog

	Jan	**Feb**	**March**	**April**	**May**	**Total**
Notes Posted	-	8	2	6	-	16
Hypertexts links to other weblogs within the course	-	1	1	2	-	4
Hypertext links to other sites	-	4	1	5	-	10
Number of received comments	-	3	4	-	-	7

Interview Subject 2 – Trine

The first post written in this weblog, in the beginning of February, is marked by the student's uncertainty regarding what to write about in the blog. The content is a point list over former and present education, and there is no additional information beside this list.

The next post is written 2 weeks later and shows signs of a student that has started to work with the course. The content is dealing with a group assignment in relation to presenting an article at the seminar, and the student is talking about creating a group blog "to drive forward their conversations" (post 9).

Kap.12 i Koschmanns CSCL2 (18.Feb)

Gruppe 9 har valgt å jobbe med kap 12 i boken CSCL2.

For å starte noe som kan drive fremover samtalene våre, har vi bestemt oss for å prøve gruppeloggen som Rune snakket om. Sender herved en henvendelse til <u>foreleser</u> om dette.

Posted by Trine at <u>01:40 PM</u> | <u>Comments (0)</u> | <u>TrackBack</u>

Post 9: Group assignment and the wish to create a group-blog

The next post is listing a set of problems that has arisen in relation to the use of the weblog. At the end of this list there is introduced solutions to these problems that the student already has tried out on her own. This post is receiving the first comments in the weblog, and they are written by the lecturer (comment 6), and one of her group members (comment 7).

Comments: Problemer

Problem 1: Nå har eg prøvd å ordne problem 1

Problem 2: Har kanskje noe med hvilken nettleser du bruker ?

Problem 3: Skjønner ikkje helt ka du mener med entryloggen, men….

Når det gjelder den forklaringen du har fått om å pinge også www.blogrolling.com så trur eg det er feil siden www.blogrolling.com benytter seg av en tjeneste fra weblogs.com. Du må derfor merke…

Posted by <u>Lecturer</u> at February 25, 2003 11:44 AM

Comment 6: Reply from lecturer with solutions to posted problems

> **Comments:** Problemer
>
> Hvilken del av gruppe9-menyen er det du mangler? Jeg kan ikke se at jeg mangler noe..
>
> Hehe, du og blogen din altså.. Bare sånne rare problemer jo! :-)
>
> Posted by [Lene](#) at February 24, 2003 08:19 PM

Comment 7: Reply from group member with solution to problem

Other problems arising in connection to technical facilities are discussed in the blog throughout this month, and questions asked are usually receiving a reply. Other posts are dealing with their mandatory assignment and the student is talking about choices made in this regard. There is made hypertext links that refer to the groupblog where reports written in regard to articles have been published (post 10). These reports are relevant to the curriculum and are often represented in the form of a résumé.

> **Summary (28.Feb)**
>
> Gruppe 9 har skrevet referater fra følgende artikler:
>
> Interaction Analysis:
>
> Paradigmeskifter:
>
> Kommentar til kap 3 og 4 i Koschmann's CSCL 2:
>
> Referatene kan leses om du følger linken til [Gruppe9](#). God fornøyelse!
>
> Posted by Trine at [08:47 AM](#) | [Comments (0)](#) | [TrackBack](#)

Post 10: Summary over articles that has been reported in the group-blog

Entering March, the weblog content is still relevant to scientific subjects and the student is writing about their assignment and choices made in this relation. There are extensive writing about articles and hypertext links to these on the Web. Questions worked with are definition of concepts and theories, and she has made tables with overviews regarding these themes. There are not made any comments within this month that can be related to these thoughts, even though she is encouraging replies (post 11).

> **Begrepsavklaring (22.Mars)**
>
> I tillegg bør jeg snart begynne å få oversikt over de forskjellige læringsteoriene, og ser
>
> frem til å lese mer fra DERE ALLE SAMMEN.
>
> Posted by Trine at [01:13 PM](#) | [Comments (0)](#) | [TrackBack](#)

Post 11: Encouraging other students

The responses are received when the student is experiencing problems with the system (comment 8/9).

Comments: Begreper og teori

Det er ikke tilgjengelig hos meg heller, og det ser ut som om filen heter

Læring_seljo.doc...

Posted by Lene at March 26, 2003 10:45 AM

Reply:

I min brownser er dokumentet tilgjengelig, og der er ingen spesielle norske tegn i

filnavnet. Dersom dokumentet femdeles ikke er tilgjengelig, kan du gi meg en lyd da?

Posted by Trine at March 26, 2003 09:51 AM

Comments: Begreper og Teori

Hei, akkurat nå er ikke dokumentet tilgjengelig, prøv å endre filnavnet så du unngår

særnorske tegn som æ.

Posted by Ivar at March 25, 2003 10:38 PM

Comment 8: Reply in relation to technical problem

Reply 1: Answering on previous comment

Comment 9: New reply on technical problem

There is only written one post during the entire month of April. The student is writing about the progression in relation to their assignment and her personal experience through this process. She has been very worn out, "but is now ready for new combats". The group has just started to look at their next assignment and they are thinking about designing their own system instead of looking at existing ones that are already in use. A comment is received from the lecturer who shows enthusiasm over their decision (comment 10).

Comments: Levert og klar til ny dyst

Ja, nå venter eg spent :-) Skal dere designe et komplett system

eller fokusere på visse aspekt ved samarbeidsverkøtyet dere tenker på ?

Posted by Lecturer at April 15, 2003 11:22 AM

Comment 10: Enthusiastic reply from lecturer in relation to their next assignment

The activity remains low in the weblog, and the last to postings are written in the beginning of May. The first post is revealing concern regarding installation of the Movable Type system and an Apache server, and the last post in the weblog is the only publishing with content not relevant to any scientific theme where the student is writing a verse in New Norwegian (post 12).

Ein ny dag (o6.May)

Tenkte å freista lukka med å kveda eit lite vers................

Nynorsken er langt frå til å kjeda eller vera verst. Ein må bere vera litt tolsam....for dei av dykk som les og skriv bokmå.

Årsaka til dette "anfallet" av kvedesjuke, er dei to gruppemedlemmane mine Lene og pmons

Posted by Eva at 02:04 PM | Comments (1) | TrackBack

Post 12: A verse written in New Norwegian

Summarizing students use of the weblog

	Jan	Feb	March	April	May	Total
Notes Posted	-	7	6	1	2	16
Hypertexts links to other weblogs within the course	-	5	7	-	2	14
Hypertext links to other sites	-	1	4	-	-	5
Number of received comments	-	4	7	1	1	13

Interview Subject 3 – Ivar

This weblog is seeing daylight for the first time in January, and it has 8 postings during this first month, 5 of them are written on the same day. The writing is on a more abstract level than the weblogs talked about previously, thoughts around both social and scientific matters are given attention, but they are more "touching" then descriptive in character. The content are in the beginning somewhat dominated by technical happenings relevant to the use of the system and thoughts regarding the weblog and its use. Instead of having a division of the content into private thoughts and scientific subjects, one post is often a mixture of both (post 13).

(Jan.25)

Hmm. Lure. Hvorfor er det ikke en login-knapp lett tilgjengelig på min egen blogg? Hvor er linkene til de andre studentene? Og vil vi få en liten liste over de siste oppdateringer i andres blogger? Legger du merke til hvordan jeg allerede i mitt tredje innlegg bruker begrepet "blogg" på en selvfølgelig og verdensvant måte?

Just nu banker en fyr på mitt vindu og vil ha meg med ut for å spille fotball. Det skal bli kjekt, du. Det er 6 grader, det regner, og vind er det visst også. Som de sier, det finnes ikke bra vær, bare bra klær. Tviler på at mine gamle gymfiller faller under sistmevnte kategori.

Posted by Ivar at <u>12:14 EM</u> | <u>Comments (2)</u>

Post 13: A post with scientific and personal content

The first comment is received in relation to this post. The answer is from the lecturer that is responding to the questions proposed by the student (comment 11).

Comments:

Alle slags linker må du legge inn manuelt. For å gjøre det må du inn på 'Templates' (har kanskje fått en norsk oversetting) og velg Main index. Før du forandrer på denne bør du ta en sikkerhetskopi (ctrl-a ctrl-c ctrl-c inn i notepad). Etc…

Posted by <u>Lecturer</u> at Januar 30, 2003 03:28 EM

Reply:

Skjønner, takk.

Posted by <u>Ivar</u> at Januar 30, 2003 08:03 EM

Comment 11: Reply from lecturer with solution to problems

Reply 2: Indicate that the solutions worked, and that the comments is appreciated

One of the posts in January that has a rather long discussion is concerning what the short term for the attending course should be since it is customary to refer to courses at the University with the use of acronyms. Many suggestions are though of, and the student is even receiving a comment from one of the founders behind the course (comment 12).

Comments: Navnet på faget

Hei,

Interesting with names - there is a history behind it and it is tied to the bureaucratic nature of the Norwegian educational system. We wanted a course where we could decide the content based on our current research interests(which hopefully are contemporary issues within the research area :-)) and that this could vary from semester to semester. The only way to do this was to create a generic title that would cover Historical and Contemporary Perspectives. Otherwise we would have to literally create a new course (with a new number and title) each time we wanted a new theme. This meant that…

Posted by Professor at Februar 6, 2003 03:30 EM

Comment 12: Reply from professor, founder of the course

February is keeping up with January when it comes to publishing frequency and there is even an increase in activity, the student is often writing more than one post during one day. There is still a bit of a mixture between the private and the scientific sphere, but this month is characterized by its information in relation to the course of study and other courses that the student is attending. There is talk about the first mandatory written assignment, and the student has chosen to work on this on his own instead of collaborating with a group (post 14). There is not given any explanation to why the student has decided to work on his own.

Semesteroppgave (25.Feb)

I går meldte jeg fra til de andre på gruppa at jeg kunne tenke meg å gjøre oppgaven alene. Ikke uten blandede følelser, det er jo både triveligere og "tryggere" å dele oppgaven med andre. Men men. Vi skal gi beskjed om hvilket virtuelt læremiljø vil skal ta for oss innen i morgen, og som vanlig har jeg utsatt avgjørelsen til siste liten.

Posted by Ivar at 05:42 EM | Comment (0)

Post 14: Student has decided to leave his group in relation to the first mandatory assignment

Other things that are mentioned are the student's difficulties when it comes to finding a system to evaluate in relation to the written assignment. He is writing that this lack of making decisions is the reason for the use of a virtual identity instead of his real name (post 15).

Hovedfagsoppgave (26.Feb)

Jeg har altså ikke særlig lett for å bestemme meg for ting (Her kommer de dårlige egenskapene for en dag -hold dere vekk potensielle fremtidige arbeidsgivere - det er ikke for ingenting at jeg bruker i-nummeret i stedet for fullt navn denne bloggen...)

I dag er det meningen at vi skal avsløre hvilket system vi skal basere den første semesteroppgaven på. Jeg har ennå ikke bestemt meg helt. Hvis dette relativt enkle valget skal være et problem, hvordan skal det da gå med å velge ut den STORE oppgaven? Det finnes tusenvis av interessante problemstillinger og oppgaver der ute, å velge ut oppgave burde være et luksusproblem skulle man tro, men dengang ei. Jeg har foreløpig ikke klart å finne ut noe som ligger tilstrekkelig høyt oppe på de tre skalaene "faglig aktuelt", "relevant i forhold til fremtidig jobbsituasjon" og ikke minst "noe jeg synes er interessant".

Posted by Ivar at 12:59 EM | Comments (0)

Post 15: Why the student wants to stay anonymous, and problems with his assignment

The number of published postings is decreasing when entering March. The first posts that are written is in relevance to the course, not in that they are directed directly towards any specific article or section in a book, rather still on a more abstract level. The next example is about the meaning of being so-called educational trained (post 16).

Mat (03.March)

The Observer har en [artikkel om Google](#) der de har et viktig poeng angående informasjonsalderen og endringer i hva det vil si å være skolert. Jeg siterer:

"Up to now, we have always equated being 'learned' with holding a great deal of accumulated knowledge and information in one's head. But in a world where every published word is instantly retrievable via technology, will our notion of what it is to be learned change?"

Det er ikke nødvendig å pugge alt mulig så lenge informasjonen er bare et par tastetrykk unna i en søkemotor som Google. Det betyr ikke nødvendigvis at vi blir dumme, det viktige er hvordan vi bruker informasjonen og ikke hvor vi henter den. Disse tankene er mat for meg. Men lærere av den gamle skolen (i bokstavlig forstand) vil nok vrenge seg i stolen.

Posted by Ivar at [03:31 FM](#) | [Comments (3)](#) | [TrackBack](#)

Post 16: The meaning of being educational trained – The use of technology in relation to learning

This post has received some comments on the subject from another student attending the course (comment 13).

Comments: Mat

Er der forskjell på prosessene 'å kunne sitere' og 'å kunne forstå' ?

Posted by [Henrik](#) at Mars 4, 2003 12:08 FM

Reply:

Det er jo klart. Sitere er å repetere informasjon uten nødvendigvis å reflektere over meningsinnholdet. [Denne artikkelen](#)…

Posted by Ivar at Mars 4, 2003 01:11 FM

Comments: Mat

Men hva hvis vår erfaring stort sett består av en hvileløs jakt på sitater ?

Posted by [Henrik](#) at Mars 5, 2003 10:33 EM

Comment 13: 2 Comments from the same student regarding quotations and understanding

Reply 3: Student responding to the comment

The same theme is guiding the next post written the same day, referring to a fellow student that has been criticizing the tradition of students presenting articles in relation to the course (post 17).

Dagens seminar (03.March)

For en tid siden kristiserte Krister det faste opplegget der studenter presenterer artikler. De fleste av studentene som har gjort dette (meg selv inkludert), har ikke de rette forutsetningene for å gjøre det på en pedagogisk måte. Dermed blir læringsutbyttet noe grumsete hvertfall for mitt vedkommende.

Posted by Ivar at 05:02 EM | Comments (0) | TrackBack

Post 17: Criticizing the learning effect of presenting articles

The student has been visiting the weblog that is presenting this criticism, and has left some comments relevant to the content, where he is hoping that the blogging activity spread out in order to gain a improved "learning community" (comment 14).

Comments: Workshop – CSCL

I dag har vi hatt nok et seminar og det Krister sier passer fremdeles bra. Alle studentpresentasjonene minner litt om det vi drev med på HCI. Du kan jo si at det er min egen feil, men jeg har vanskelig for å holde konsentrasjonen oppe under disse fremføringene. Det er nå kun tre dager igjen med undervisning, og det ser ut som at dersom man vil få noe særlig læring i dette faget må man stå for det på egen hånd. Vi får håpe bloggvirksomheten brer om seg og at vi på den måten kan få et bedre "learning community".

Posted by: Ivar on March 3, 2003 04:12 PM

Comment 14: Commenting on criticism

The next day keeps up the thread, still relevant when it comes to learning, but a slightly different change in the content, leaning towards the use of others research and being able to get hold of master thesis to build on previous work (post18).

Mer om hovedfagsoppgaver (04.March)

Dette at mer informasjon gjøres tilgjengelig kan være med på å gjøre det enklere i fremtiden å bygge videre på andres arbeid. Det er ikke så mye arbeid som kan bli gjort innenfor rammene av den nye masteroppgaven. Derfor vil det være bra når det legges til rette for mer samarbeid og større prosjekter. Så får det arbeidet man utfører likevel verdi. Kanskje burde UiB hatt et institutt for tverrfaglige studier, ihvertfall hadde det vært kjekt dersom man kunne samarbeide over faggrensene i større grad.

Posted by Ivar at 01:54 FM | Comments (0) | TrackBack

Post 18: Making master thesis accessible, and the need of collaboration

The content in the posts changes in the remains of the month. Non-scientific subjects are getting more focus. The activity in the blog does not decrease, although some of the posts are getting shorter. The student is writing about what is happening in the world and how the media is presenting the information, other things that are getting attention is the editors decrease in the scientific area because of the purchase of a new computer (post 19).

Dårlig med fremgang (25.March)

Det går litt tregt om dagen. Dette "ny datamaskin"-proskjektet stjeler i overkant med tid og krefter. Joda, det er billigere og gøyere å bygge maskin selv, men også mye mer kronglete, spesielt for en uteknisk og lite handlekraftig type som jeg nå engang er.
Faglig så skal oppgave 1 leveres i slutten av neste uke. I øyeblikket er jeg litt usikker på hvordan jeg skal ordne det.

Posted by Ivar at 01:17 EM | Comments (7) | TrackBack

Post 19: Commenting on the decreasing activity within the scientific area

This post is receiving several comments, both when it comes to the purchase of the computer, and in relation to the troubles regarding the delivery of the first assignment (comment15, 16, 17).

Comments: Dårlig med fremgang

Jeg sier det igjen.

Ikke gi deg. Send en mail til Rune,og han sjekker sikkert bloggen også, om at dersom han vil du skal skrive en oppgave, så må han hjelpe det i gang med åp få laste ned verktøyet…

Posted by Trine at Mars 25, 2003 08:49 EM

Reply: Jo takk...

Posted by Ivar at Mars 25, 2003 10:13 EM

Comments: Dårlig med fremgang

Ta nå en prar med system gutta så får du nok instalere på en av lab maskinene.

Hvordan går det med bygge prosjektet?

Posted by Trond at Mars 26, 2003 05:03 EM

Reply: Hovedkortet virket ikke, så det er sendt i retur, og behandlingen av dette tar tid.

Det går nok fort en uke eller to til. Og da…

Posted by Ivar at Mars 26, 2003 09:43 EM

Comments: Dårlig med fremgang

Det har alltid vært opp til gruppene selv å velge system. Det er ikkje slik at eg fordeler 'gode' og 'dårlige' system. Systemet som det er linket til fra kurssiden kan alle studeres. Lykke til og beklager eventuelt rot.

Posted by Lecturer at April 1, 2003 03:06 EM

Reply: Med gode og dårlige system mener jeg her systemer som er egnet til vurdering, ikke hvorvidt de er godt egnet til sitt formål. Det distribuerte…

Posted by Ivar at April 1, 2003 03:47 EM

Comment 15: Encouragement from a student in relation to the assignment

Reply 4: Appreciating comment

Comment 16: Encouragement from a student in relation to technical problems

Reply 5: Description of problem development

Comment 17: Reply from lecturer regarding the assignment

Reply 6: Student straightens out discussion with lecturer

The published postings in the weblog are still decreasing in April. The content is divided on 5 posts during this time and they are mostly social in their commenting, although activities in relation to the course are still mentioned. The student is, among other things, writing about the delivery of the first assignment (post 20), in resemblance to previously described weblogs.

Del 1 over (15.April)

Fint å få levert oppgave og etterpå fått seg store mengder søvn. Se deg aldri tilbake er det noen som sier, og det rådet skal jeg prøve å følge følge (hvertfall fram til muntlig), men jeg må likevel nevne at oppgaven min kanskje ble litt lang (ihvertfall tilsynelatende). Vi får håpe at sensorene viser nåde og heller lar seg blende av det paradigmerystende innholdet. Akk ja.

Posted by Ivar at 11:48 FM | Comments (2) | TrackBack

Post 20: First assignment is handed in

The activity is picking up again when entering the month of May, as a contrast to the two weblogs previously described. The most of the writings are now surrounding the weblog as a system. The editor has also gotten a friend interested in the blogging phenomena, and he is posting some thoughts around the differences provided by the various weblog systems that are offered through the Internet. The system provided by 'Blogger' does not seem to have the same use of comments as Movable Type, and he thinks of this as a problem (post 21).

Blogger og menigmann (13.May)

Finnes det andre gratis blogg-tjenester der ute, som gjør det enkelt for folk flest å få en relativt funksjonell blogg? Jeg er tilhenger av å fjerne flest mulig av de tekniske barriererne. Fokus bør være på innhold og utveksling av meninger og kommunikasjon og ikke det tekniske og scripts og ftp. Skal jeg fortelle en hemmelighet, (vi på informasjonsvitenskap vet det kanskje ikke), tech-folk har ikke mer interessante meninger enn andre. Demokratiske problemer følger med alle medier, men det betyr ikke at man ikke skal forsøke å overkomme dem.

Posted by Ivar at 02:29 EM | Comments (1) | TrackBack

Post 21: Students thoughts around features in weblog systems

Other postings are focusing on the up-coming project proposal in relation to the master thesis, and the suggestions are touching themes with regard to communication through the use of

computers or other functions that come with the technology. In this relation the student says that he prefers instant messenger prior to weblogs and the use of comments, but there is not given any explanation concerning why instant messenger is preferred (post 22).

…Oppgaven og temaer igjen (16.May)

Prosjektet tok for seg digital kommunikasjon og det viste seg at de som var med i undersøkelsen foretrakk instant messaging framfor tradisjonell e-mail. Videre ble det spekulert i om det er et slags generasjonsifte når det gjelder måter å kommunisere på nett. Jeg skulle tro det gikk an å gjøre undersøkelser i denne retning her hjemme også. Jeg foretrekker selv IM.

Posted by Ivar at 12:01 EM | Comments (8) | TrackBack

Post 22: Thoughts around the use of comments versus instant messaging

The last posts are written in midst June, talking about that it has been to long since the last posting, the delivery of the last assignment and the CSCL Conference of 2003. The student is attending as a "volunteer" at the conference, something he enjoys because of the other student volunteers, which with he can practice, more or less, with an emphasis on the latter, scientific conversations (post 23).

Lenge siden sist (14.June)

…jeg har skrevet noe her. Nå må isen brytes. CSCL 2003 er igang, og jeg er med som "student volunteer". Kan det være o da, tenker du, men det faktisk veldig kjekt, og det er en masse trivelige "medfrivillige" å utøve mer eller mindre vitenskapelige konversasjoner med (les:mindre). I dag tok jeg i mot Gerry Stahl sin lunchbillett, noe som må være opp mot et høydepunkt i min akademiske karriere.

Posted by Ivar at 04:02 EM | Comments (0) | TrackBack

Post 23: Commenting the CSCL conference, and the role as a student volunteer

Summarizing the students use of the weblog

	Jan	Feb	March	April	May	Total
Notes Posted	8	23	12	5	12	60
Hypertexts links to other weblogs within the course	-	2	2	-	2	6
Hypertext links to other sites	-	33	15	34*	21	103
Number of received comments	4	25	20	6	26	81

Interview Subject 4 – Per

The first post in this weblog is written at the end of January, the content is revealing that it is a test to see if the weblog is working, the writing does not put on speed before the beginning of February, then there is published 3 postings on the same day, and this activity is maintained through the month. The content in these posts are relevant to the course and the seminars, and the writer seems optimistic about the use of weblogs by suggesting a group-blog to be used in relation to presenting articles (post 24).

Hard uke !! (o4.Feb)

Iskaldt idag, skulle heller ha holdt sengen.

Skal ha forelesning nå klokken 10. Skal bli spennende å se hvordan de andre presenterer sine artikler. Håper ikke de legger listen høyt...

Skal få gruppeblog slik at vi kan legge ut felles referater.......

Får prøve å ordne litt på bloggen min senere idag

Kommer sterkere tilbake med noe saklig.....

Posted by Per at 09:37 AM | Comment (0)

Post 24: First post in the weblog

The next postings are writing about the first seminar, and there is written a summary in this relation, there is also information relevant to the article the students group is set to present, but this post ends in the middle of a chain of thought with: "I will be back stronger than ever tomorrow". This promise is not carried through, the next post is written a week later. The content in this next post is indicating that the student is intending to use the weblog, but he is giving utterance implying that he does not believe "it will be useful" (post 25).

Fullt kjør (11.Feb)

Tenkte jeg skulle inn litt tidlig idag for å prøve å blogge litt, men det har vist seg gang på gang å være hardt.

tenkte jeg skal ta å skrive litt om forelesningen idag samt gi et aldri så lite referat av de artiklene vi skulle ha til idag.

Tror ikke at denne bloggingen har noe for seg.......

Posted by Per at 09:44 AM | Comment (0)

Post 25: Student is writing sceptical about intending use of the blog

The rest of the postings during this month are a blend of scientific content related to the course, in the form of a summary of the assigned article, comments related to other read material (post 26), and social comments that has a rather humorous and foolish tone (comment 18).

UTDRAG FRA CSCL 2 (12.Feb)

"A COMMENT IS A NOTE THAT IS LINKED TO THE NOTE IT IS COMMENTING ON"

En bra definisjon sånn i tilfelle noen av dere lurte på hva en kommentar er for noe. For mer idiotiske ting så henvises det til videre lesning i CSCL 2 boken.

Visst du ennå er usikker på hva en kommentar er, så blir det illustrert ved hjelp av en genial figur på side 20.

Enjoy......................................

Posted by Per at 04:49 PM | Comment (1)

Post 26: Thoughts around a definition

Comments: Utdrag fra CSCL 2

Du må ikke være så negativ til læreverket. Boken har sine svakheter, ja, men det er også mye bra.

Spesielt innholdsfortegnelsen og enkelte av bildene synes jeg er gjort på en fremragende måte. Det nærmest oser av kvalitet.

Stå på.

Var dette en kommentar?

Posted by "Prince" Billy at February 13, 2003 12:44 PM

Comment 18: Reply to previous note regarding definition

ARNE (13Feb)

THE MAN I LOVE

MY HERO,

MY EVERYTHING,

THE ONE AND ONLY;

MR.......ARNE

Posted by Per at 04:27 PM | Comment (1)

Post 27: Ode to a fellow student

The last post is written in March, and is in relation to the group assignment. The student is presenting all the group-members in his group in a humorous fashion (post 28), the last comment is written in this relation and is as unserious as the post itself (comment 19).

Oppgave 1 (10.March)

Der var vi igang med en gruppe bestående av svært kompetente mennesker; Ole Olsen; - en ressurs på gruppen

Gunnar Gundersen; - Kongen

Per Pedersen; - gruppens TOSK

Tror at dette kan bli bra!!!!!!!!!!!!!!!!!!!!!

Begynner for alvor idag, men siden Ole mangler så regner jeg med å få snuden full av kjeft imorgen.

Posted by Per at <u>10:21 AM</u> | <u>Comment (1)</u>

Post 28: Last post presenting the group-members

Comments: Oppgave 1

Bra Per. Du vet din plass.

Posted by <u>Frank</u> at March 11, 2003 12:29 PM

Comment 19: Reply to the previous post

Summarizing the students use of the weblog

	Jan	**Feb**	**March**	**April**	**May**	**Total**
Notes Posted	1	9	1	-	-	11
Hypertexts links to other weblogs within the course	-	-	-	-	-	0
Hypertext links to other sites	-	4	-	-	-	4
Number of received comments	-	2	1	-	-	3

Interview Subject 5 – Frank

All the content in this weblog is written during February. The first published post is in relation to start using the weblog, and the student is pleasantry giving credit to two fellow students that has been helping with the layout at the site (post 29), this comment i receiving some attention from others within the environment, which pursue the same tone of voice (comment 20).

Hei! (03.Feb)

Har nettopp fått opp min egen hjemmeside, eller blog som nerdene kaller det. Takk til Lars Eirik og Marius for uvurderlig hjelp med å forandre layout på denne fantastiske saken. Uten deres hjelp hadde dette vært umulig. Tror forresten de to er sammen. Vi gratulerer.

Fremover vil det bli presentert mye sinnsykt avansert vitenskapelig arbeide på disse sidene, alt selvfølgelig ut fra mitt eget fantastiske hode.

Posted by Frank at 03:57 PM | Comments (4)

Post 29: Content posted in relation to beginning to use the weblog system

---

Comments: Hei!

Nå begynner jeg å bli lei av at Fredrik er misunnelig på meg.. Jeg og Marius trives godt sammen. Fredrik skulle tydeligvis ønske det var han som var i samme bås som meg, men av og til kan du ikke få det som du vil..

Posted by Tom February 3, 2003 04:01 PM

Comments: Hei!

No vart vi litt vel useriøse her... Men eg observerer at du, Fredrik, og Roger samarbeider veldig godt sammen (skjult) innerst i hjørnet her på datasalen.

Posted by Magne at February 3, 2003 04:07 PM

Comments: Hei!

Fytt i helvete, Fredrik. Er du blitt homo? Og enda verre, omgås du homser? Du må komme deg opp igjen til den trygge varme tungindustrien i Høyanger, der du etter sigende skal være sinnsykt hetro, men det er vel enda ikke bevist, så der blir det påstand mot påstand...

Posted by Tore at March 25, 2003 11:57 AM

Comment 20: Playful comments in relation to the first posting

The rest of the content is divided between scientific happenings in relation to the course, a summary of the first seminar (post 30), thoughts around the war in Iraq (Post 31), and a joke, which all receive witty comments from fellow students (comment 21).

Seminar CSCL (o4.Feb)

Dagens arbeidsseminar tok for seg ulike læringsteorier og paradigmer innen CSCL (Computer Supported Collaborate Learning). Innledning ble holdt av Sten Ludvigsen, førsteamanuensis/dr. polit. ved InterMedia fra Universtitet i Oslo. Fire grupper fikk i oppgave å presentere hver sin artikkel innen fagområdet, og Ludviksen stod for oppfølging og videre kommentarer. Det var tydelig at gruppene hadde forberedt seg godt, og ikke bare fulgte artiklene skjematisk.

Posted by Frank at 04:01 PM | Comments (0)

Post 30: Summary from seminar

Danmarks bidrag (o4.Feb)

I disse krigstider har USA bedt sine allierte stille styrker til disposisjon for en eventuell krig mot Irak. Norge sitter for tiden på gjerdet og ser an situasjonen. Danmark derimot, har handlet - de sender 40 mann i en U-båt!

Posted by Frank at 05:47 PM | Comments (1)

Post 31: Thought around the war in Iraq

Comments: Danmarks bidrag

Dette var en morsom historie som viser at du er samfunnsengasjert og særdeles opplyst. Bra!

Posted by Finn at February 4, 2003 05:49 PM

Comment 21: Sarcastic comment in relation to former post

The last post is published in relation to two articles that the student has read, and gives a review of the main points of these, and a short criticism (post 32).

To artikler om CSILE

Som forberedelse til morgendagens seminar leste jeg to artikler som tok for seg CSILE (Computer Supported Intentional Learning Environments). Dette var:...

Kritikk

Sånn jeg forstod artiklene så var de så entusiastisk over denne nye læringsmetoden at de i liten grad hadde funnet plass til egenkritikk. Alt virket rosenrødt og gloriøst.

Posted by diddy at 05:22 PM | Comments (0)

Post 32: Articles read by student, and a short criticism of these

Summarizing the students use of weblogs

	Jan	Feb	March	April	May	Total
Notes Posted	-	5	-	-	-	5
Hypertexts links to other weblogs within the course	-	-	-	-	-	0
Hypertext links to other sites	-	6	-	-	-	6
Number of received comments	-	7	-	-	-	7

Interview Subject 6 – Lise

This weblog is activated at the end of January, but the published postings are produced during February, which is the only month that this student has been writing in the system. All the posts are in relation to the course and are containing information relevant to this. All the post has received comments, but most of them are wittiness on behalf of the student. The first post is a long description of a presentation carried out by the writer and a fellow student (post 33).

(04.Feb)

Dagens presentasjon gjort av Thomas og meg, omhandlet dynamikken i individuell og sosial læring. Artikkelen som ble diskutert var " Individual and Social Aspects of Learning" skrevet av Salomon og Perkins. Under presentasjonen ble seks ulike varianter av sosial læring med ulik vekt på individets rolle, sammen med en gjennomgang av relasjonen mellom disse.

Andre gruppemedlemmer er: Knut og Petter

Posted by Lise at 04:09 PM | Comments (2)

Post 33: Post regarding a presentation in relation to a seminar

The first comment given is in relation to this post written by group-members that did not take part in the presentation at the seminar, but they want to make it clear that they also contributed to this presentation (comment22, 23). One of them is pointing out that this presentation is also retrievable elsewhere on the Internet.

Comments:

Vil legge til at Petter og jeg stod for den pedagogiske opplæringen av Lise og Thomas. Uten oss hadde de stått der som to nek en en varm sommerdag uten en eneste dompapp...

Posted by Petter at February 4, 2003 06:07 PM

Comments:

ikke for å være vanskelig, men en ganske så bra powerpoint presentasjon av denne artikkelen ligger som de fleste vet på nett! Se url over!

Posted by Knut at February 4, 2003 09:47 PM

Comment 22: Comment from group-member clarifying his contribution
Comment 23: Group-member referring to retrievable presentation on the Internet

The editor of the page is, humorously, in the next post excusing that she did not give credit to the other group-members contribution in relation to the presentation. And that she is looking forward to continuing the work relation through the semester (post 34).

(05.Feb)

En liten retting: Etter siste innlegg har jeg fått tilbakemelding om at to av gruppens medlemmer (for anonymitetens skyld Knut of Petter), føler seg litt tilsidesatt og ikke har fått kreditt for sine bidrag. Jeg beklager sterkt at det ikke kom bedre frem at dere var en viktig brikke i spillet. Uten dere hadde det ikke blitt det samme. Når dette er sagt, ser jeg frem til videre samarbeid utover våren.

Posted by Lise at 02:59 PM | Comments (1)

Post 34: Student excusing missing credit to the other group-members

The last to posts is written in relation to the system that the group is evaluating in relation to the mandatory assignment. The student is posing a question wondering if anybody knows of a system that may be a bit untraditional that the group could have a look at (post 35), and she receives a comment by the lecturer, which proposes a program (comment 24), he also asks a question, but the student is not responding to it within the weblog.

(19.Feb)

For tiden jobbes det med å finne et interaktivt læringsprogram som vi skal evaluere i forbindelse med info352. Er det noen som har erfaring med slike programmer og vet om et som er litt "utradisjonelt"?

Posted by Lise at 01:46 PM | Comments (1)

Post 35: Student asking if anyone know of a system they can evaluate

---

Comments:

Her er noen interactive programmer som jeg nylig fikk tips om fra en e-post:

http://www.interactive-resources.co.uk/

Men hva mener du egentlig med interaktiv? Interaktivitet finnes jo mer eller mindre grad i alle program, er du ikke enig ?

Posted by Lecturer at February 25, 2003 11:24 AM

Comment 24: Reply from lecturer that are proposing a program

The last published content is about work that the group should have done that day and what system the group has chosen to be their assignment. The post ends with the decision that instead of working on their assignment, they choose to go out for the day and enjoy the weather (post 36).

(27.Feb)

Dagen i dag er ment å bli brukt til gruppearbeid i info352. Oppgaven vi skal gjøre er å evaluere et læringssystem, og vi har tenkt å se nærmere på it`sLearning. Denne læringsplattformen brukes veldig mange steder i Norge for eksempel ved Høgskoler, videregående skoler og handelshøgskolen.

MEN istedenfor å gjøre dette akkurat i dag, tar vi oss en tur på fløyen, eter kake og nyter finværet.

Posted by Lise at 11:33 AM | Comments (2)

Post 36: Last post in the weblog regarding group work that should have been done that day

The student has received a comment in this post regarding a mail that has been sent to the respondent. It is a longer explanation round different concepts relevant to the curriculum (comment 25). Because it is answered under a posting not relevant to the content, others may not be aware of its significance.

Comments:

Siden du kanskje har lagt inn feil e-post adresse i 'reply to' feltet i e-post programmet ditt (fikk e-posten i retur) så poster jeg heller svaret mitt her.

Hei   .

Jo, dette er selfølgelig et ganske omfattende spm, men jeg skal gi dere et par pekepinner...

Mvh
Georg

Comment 25: Comment from a reader that has been contacted by the group through e-mail

Summarizing the student's use of the weblog

	Jan	Feb	March	April	May	Total
Notes Posted	1	5	-	-	-	6
Hypertexts links to other weblogs within the course	-	3	-	-	-	3
Hypertext links to other sites	-	-	-	-	-	0
Number of received comments	1	7	-	-	-	8

Interview Subject 7 – Thomas

The first two posts that are published at the end of January consist of short comments relevant to things outside the course environment. The rest of the postings through the months are less private and mostly in connection to the course and curriculum. The first published post in February is in relation to the introduction of weblogs and the weblog system, the student is satisfied with this presentation, but is mentioning that they should have used more time in getting to really know the system (post 37).

CSCL (o4.Feb)

Meget fornøyd med innføringen i samarbeidsverktøyet mandag formiddag. Litt mer tid kunne likevel vært nødvendig for å bli godt kjent med bruken av det. Den påfølgende forelesningen om blogger var også interessant.

Posted by Thomas at 08:54 AM | Comments (0)

Post 37: Student is satisfied with introduction to the weblogging system

The next posting is published at the same day as the previous, and are presenting a hypertext link to the first presentation introduced by the student and his group (post 38).

Presentasjoner (o4.Feb)

Dagens forelesning er ferdig og det har vært stor fokus på studentpresentasjoner. Her er en lenke til min gruppes presentasjon

Individual and social aspects of learning

Posted by Thomas at 02:56 PM | Comments (2)

Post 38: Hypertext links to the student's first presentation

The firs two comments are received in connection to these to postings, and they are both marked by a playful tone (comment 26), one of them is even written in April, two months later than the post that it is responding to.

> **Comments:** Presentasjoner
> Denne presentasjonen var av meget høy klasse. Dagens klart beste!
> Posted by Truls at February 5, 2003 11:33 AM
>
> **Comments:** Presentasjoner
> Linken er dau jo mann
> Posted by Ivar at April 12, 2003 02:59 PM

Comment 26: Playful comments from fellow students

The rest of the postings during February is in relation to the student's group presentation, hypertext links to articles, and information with regard to the student and his groups mandatory assignment and the system they have chosen for evaluation (post 39) The student is encouraging others to take a look at a group member's weblog in order to get further information. The comments given by fellow students are keeping up the humorous language as indicated in previous example.

> **Assignment1 (o7.Feb)**
> Vi har nå bestemt oss for å skrive en oppgave om It's Learning. Dette er et læringssystem som er utviklet av den Bergensbaserte bedriften it:solutions og brukes av mange høyskoler og universiteter i hele Norge.
> For en mer fyldig gjennomgang av det vi skal gjøre, vennligst ta en titt på Petters blog.
> Takk for meg og ha en god dag.
> Posted by Thomas at 11:35 AM | Comments (0) | TrackBack

Post 39: The system the student's group has chosen as their assignment

The first post written in March is at the beginning of the month, and the student is continuing the information in the prior post that is relevant to the assignment. The group is having a meeting with the founders of the system under evaluation, and the editor is inviting others to take a look at the founders web site for a further explanation of the system (post 40).

> **Assignment1 (o4.March)**
>
> Arbeidet med første oppgave er i gang. Førstkommende fredag møter vi de ansvarlige for It's:Learning som skal gi en liten innføring i systemet. Fram til det skal vi forberede oss godt.
>
> Besøk gjerne It:solutions hjemmesider hvor de enkelt forklarer læringsplattformen.
>
> Posted by Thomas at 11:07 AM | Comments (0) | TrackBack

Post 40: Student's group is having a meeting with the founders of the system under evaluation

The next two posts that are written within this month, out of a total of 3 published texts, is a summary of a section in a book, and the last, a question surrounding the understanding of different theories in relation to the curriculum (post 41).

> **Teorier (25.March)**
>
> kan noen si helt kort hvordan SitCog står i forhold til Konstruktivisme som sådan? Snakker vi om generiske grupper og subgrupper av teorier? Eller er det bare det at de to bærer elementer av de samme tingene uten at den ene bygger på den andre?
>
> Posted by Tom at 02:29 PM | Comments (1) | TrackBack

Post 41: A question regarding the understanding of different theories

This post receives an answer from one of the other students within the course (comment 27).

> **Comments:** Teorier
>
> I Land & Hannafin artikkelen står følgende:
>
> Constructivists view reality and meaning as personally rather than universally defined. Such environments draw heavily from psychological research and theory related to areas such as situated cognition with attendant assumptions emphasizing the interlacing of content, context and understanding, the individual negotiation of meaning, and the construction of knowledge.
>
> Av dette tolker jeg at…
>
> Posted by Lene at March 25, 2003 11:35 PM

Comment 27: Comments in relation to previous post (post x)

The last, and only published post in April, is in connection to the second mandatory assignment, and the student is writing optimistic about possible solutions his group is

considering at the present time, and what theory that will be made use of as a framework in this relation (post 42).

Assignment 2 (29.April)

Da begynner brikkene å falle litt på plass i forbindelse med oppgave 2. Gruppen min satser (sannsynligvis) på å lage en prototyp til et verktøy til bruk for studenter som følger kurs med stor grad av skrivetrening. Dette verktøyet skal utgjøre et rammeverk for god kommunikasjon mellom studentene som tar kurstet, og gi dem mulighet til å sammen bearbeide hver students tekster gjennom kommentarer og forslag til evt. endringer. Teoretisk kommer vi (sannsynligvis) til å ta utgangspunkt i et sosiokulturelt og konstruktivistisk perspektiv.

Mye arbeid gjenstår, men vi føler vi er på riktig vei!

Posted by Thomas at 03:07 PM | Comments 4 | TrackBack

Post 42: Posting in relation to the groups next assignment

This post has received 4 comments from the same person, in April, May, and September. The respondent is praising the choice made in relation to the assignment. The comments are probably written with a humorous meaning since the email address given by 'Oscar' is a dead end (comment 28). The editor of the weblog has not responded on these comments.

Comments: Assignment 2

Dette er meget spennende ut. Ser fram til å følge utviklingen i prosjektet! Jeg syns det er spesielt positivt at noen tar opp den problemeatikken som oppstår med konstruktivisme og sosiokulturelle i en forent enhet for læring. Stå på!

Posted by Oscar at April 29, 2003 03:11 PM

Comments: Assignment 2

Ytterst spennende. Interessant å se hva dere kan få ut av den djerve kombinasjonen konstruktivistisk/sosiokulturelt perspektiv. Jeg vil daglig komme tilbake for å følge prosjektets videre gang.

Posted by Wilde at April 29, 2003 07:28 PM

Comments: Assignment 2

Nå?

Posted by Oscar at September 11, 2003 04:28 PM

Comment 28: Comments from fellow student

Summarizing the students use of the weblog

	Jan	**Feb**	**March**	**April**	**May**	**Total**
Notes Posted	2	8	3	1	-	14
Hypertexts links to other weblogs within the course	-	2	-	-	-	2
Hypertext links to other sites	-	5	1	-	-	6
Number of received comments	3	3	1	4	-	11

Appendix E

Norwegian/English Translation

Summary

This appendix show the English translated quotations compared to the original Norwegian quote from the interviewed students. The English quote is introduced in the same order they have been used in each of the summaries of the students use of weblogs (Chapter 6), followed by the original quote in Norwegian.

Jonas

1. "someone find something and give the others tips regarding how to do things"

Nei, egentlig ikke, noen andre finner noe og gir tips om hvordan man gjør det osv.

2. "It doesn't bother me that others read these kind of things".

Det plager meg ikke at andre leser om dette.

3. "I'm not in a research mode when I write the "entry", than I already know what to write about".

Når jeg blogger om noe faglig, er det ofte ting jeg har tenkt masse på. Jeg er ikke i utforsker modus når jeg skriver "entrien" da har jeg bestemt hva jeg skal skrive om...

4. "To show them that I've been visiting their site".

Littegrann for å vise at jeg har vært innom å kikket.

5. "But she sort of belong to the course".

Men hun tilhører på en måte faget.

6. The problem was that too few students were engaged in the use, "so I chose not to use it either".

Men for få har brukt den, og da har jeg valgt å ikke gjøre det jeg heller.

7. "It isn't too much fun to write when one doesn't receive any answers".

Det blir ikke så kjekt å skrive når man ikke får svar fra noen.

8. "Through the blogging in this course we haven't created anything".

Gjennom bloggingen på vårt fag har vi ikke vært med å skape noe som helst kultur.

9. "the scientific information in the course does not hold the same motivating factor as reaching the end-of-term, getting the final grade".

Innholdet i faget har ikke like mye motivasjon som det å bli ferdig med faget, å få karakteren. Det kan hende det ligger en verdi i det uansett, likevel..

10. "In that respect I'm a bit disappointed, it would have been nice to get some more answers in relation to my questions".

På den måten så er jeg litt skuffet, kunne godt tenke meg å fått svar på spørsmålene jeg stilte, har fått svar på noe.

11. "It is nice to put a text in context, a good way to become absorbed in the substance, but it takes time to find things. One needs to have an overview in being able to find the things one need".

Det er fint at man kan sette en tekst i kontekst. Fin måte å kunne fordype seg i materien, men det tar tid å finne ting. Man må ha en oversikt over hvor man finner det man trenger.

12. "A wannabe blogger… No, I'm not a blogger, I'm a guy who blogs a bit. The interest is present. Maybe if a felt it had a more important part when studying, but…"

(ler..) En wannabe blogger.. Nei, jeg er ingen blogger, jeg er en fyr som blogger litt. Interessen er der, hadde jeg følt det var en viktig del av studiehverdagen, men...

13. "especially one".

I allefall hvis andre fortsetter å blogge sånt at jeg kan, jeg har litt sånn diskusjon med noen, eller spesielt en, så sånn sett tror jeg jeg vil fortsette.

14. "but I can in addition make a homepage, as I've seen other students has done".

Jeg kan jo lage en webside i tillegg.. som jeg ser at flere har fått seg på hovedfag.

Trine

1. the choice of genre was hard to find; "how personal or scientific one should be".

Men det var litt artig å komme igang selv om man følte seg litt usikker på hvordan man skulle ligge an sjangeren på det man skulle skrive. Hvor personlig man skulle være eller faglig.

2. "I don't usually unfold my personal life on the Internet"

Jeg kommer ikke over den personlige sperre. (ler..) Har ikke for vane å brette ut privatlivet mitt på nettet.

3. If she would have done so than she may have written about her hobbies and interests, her work as waitress in a restaurant, food and wine, and those kinds of things. "But that would be up to me, and I haven't made that leap".

Så da kunne jeg gjerne blogget litt om hobbyer og interesser eller jobben min i restauranten om mat og vin og slike ting. Men, det er nok litt opp til deg selv også, jeg har ikke tatt det steget..

4. there has not been any discussion that has been in progress over a longer period of time, "but than again, there aren't that many to discuss with"

Vi har ikke hatt noen faglige diskusjoner som har utvikklet seg til en lang tråd, (ler) men så er det jo ikke så mange å diskutere med

5. "this is evident in our environment, there are no requirement related to the students use, and hence they aren't used".

Og det mener jeg viser seg veldig godt i vårt blog miljø, det er ingen krav til studentene å bruke det, og derfor blir det ikke brukt.

6. "no activity today either, well, well".

Ingen aktivitet i dag heller, nei, nei...

7. "I read the blog because his writing is interesting".

Men jeg leser bloggen fordi det er interessant det han skriver.

8. "the blog is the reason for me getting to know him".

Og da har jeg gjerne begynt å prate med ham fordi han blogger gøye og artige kommentarer, både litt personlig og en del faglige ting. Så der har gjerne bloggen gjort at jeg har blitt mer kjent med ham personlig.

9. "looking forward to read more from you all"

I tillegg bør jeg snart begynne å få oversikt over de forskjellige læringsteoriene, og ser frem til å lese mer fra DERE ALLE SAMMEN.

10. "it is interesting. I've found some in Jill's (Walker) blog, private things, and I've found some thing related to design of websites".

.... det er interessant. Jeg har funnet endel på Jill sin side, private ting. Også funnet en del del om design av websider.

11. "I'm not going to take my mouth full and say that I had anything to contribute with, but I made my reflections over things I've read and made some tables and summaries from this, hoping that someone would comment on it, give me feedback. Sometimes it worked, but usually it didn't. It worked within our group, and towards one or two other bloggers. It was next to nothing".

Skal ikke ta munnen for full å si at jeg hadde noe å bidra med. Men i enkelte tilfeller var det slik at okei, jeg hadde gjort mine refleksjoner over litteratur jeg hadde lest og hadde laget noen referater eller tabeller, og da håpet jeg på å få noen tilbakemeldinger og kommentarer, i noen forbindelser fungerer det og som regel fungerte det gjerne ikke...

12. "no, I don't feel I have the right to do that, but I've could have been one because. I haven't fully taken advantage of the possibilities that the system offer, I've just used it in relation to the course and haven't "gone out" beyond this environment".

Nei, jeg synes ikke jeg har rett til å gjøre det, men jeg kunne vært det. Fordi (ler) jeg har ikke utnyttet de mulighetene som er der. Jeg har kun benyttet den til faglige ting og har ikke "gått ut over" dette miljøet, bare tittet litt...

13. "I have at least tried to contribute. The possibilities are present".

Jeg har i allefall prøvd å bidra. Mulighetene er der.

14. "I think it is a great idea! Every student at the University should have their own weblog"

Jeg liker bloggen, synes det er en kjempeidé! Alle studenter på UiB burde hatt en egen weblog.

15. "you get used to formulating through your writing, it helps".

Og jeg får skrivetrening, du blir vant til å formulere deg skriftlig, det hjelper deg.

16. "that was amusing, then we could go back an see what we had thought at that time".

Det var artig, da kunne vi gå til bake å se på "hva var det egentlig vi mente sånn og sånn.."

17. "we have made summaries, winded up threads between various authors. Other has made translations of articles from English to Norwegian from an original of 7 pages to a summary of 5. Not good enough".

Vi har lagt ut referatene våre, trukket linjer mellom flere forfattere. Et par har kanskje skrevet et referat fra engelsk til norsk, originalen er på 7 sider og referatet på 5, dette er mer en oversettelse, ikke bra nok.

18. "it could have been much better if others had made use of it to the same extent. It saves time, getting together in groups takes a lot of time".

Det kunne vært så mye bedre hvis flere hadde brukt bloggen. Dette er tidsparende, en kollokvie tar mye mer tid.

19. "then you're all alone with your own thoughts, and maybe you'll receive some response from others interested in the same things as you are".

Jeg har ikke tenkt over det, men jeg tror det kan være nyttig når man skriver hovedfagsoppgave, da er du ganske alene i din egen tankeverden og for gjerne å få litt tilbakemelding, om det er noen "der ute" som jobber med det samme...

Ivar

1. "It wasn't an unfamiliar thing to do".

Nei, tror ikke jeg synes det var så veldig vanskelig, men jeg har jo skrevet litt på nettsider, tror kanskje det hjelper på, sånn i forum, i gjestebøker, på hjemmesider, chatting og sånn, var ikke en uvant følelse å jobbe med sånt noe.

2. "There isn't much pressure related to frequent postings. There are many students that doesn't publish much, or anything at all".

Det er ikke noe stort press på å legge ut ting. Det er mange som ikke legger ut så mye, eller noe i det hele tatt.

3. "I don't think so, but going through the process, poorly writing is revealed. It is a public forum, I don't use my name, only my student number".

Jeg vet ikke om sensor og slikt følger med, det tror jeg ikke da, men når man skal igjennom den prosessen så kommer det frem dårlige ting også. Det er et offentlig forum, jeg har ikke navnet der da, studentnummeret som hører til navnet er der.

4. "I keep myself posted, but it hasn't been difficult to keep up, there isn't much to read, some haven't published anything for weeks, probably due to the written assignment".

Jeg følger med hele veien, men det har ikke vært så vanskelig heller, det er ikke så mye å lese på, sikkert ingen som har lagt inn noe på flere uker, sikkert på grunn av oppgaven...

5. "but I can understand that this happens, it takes time to write a contribution".

Det er ikke så mye arbeid med den oppgaven at *jeg* ikke har tid til å legge inn litt, men jeg kan forstå at det er litt sånn.. Hvis det krever mye å skrive et innlegg, bruke tid på det.

6. "it may even be better to leave comments, you have another position".

Kanskje bedre å kommentere, du har en annen possisjon

7. "I knew that the chance of two students entering the chat at the same time... It weren't going to happen"

Skjønte det når den kom, at sjansen for at 2 stk skulle gå inn samtidig det...

8. "I don't use that much hypertext links",

Jeg bruker ikke så utrolig mange linker egentlig, hvis du kommenterer et eller annet sted, eller refererer til noe, så refererer jeg med en link.

9. "that is almost the most enjoyable part, following the links when someone has written about something, then these leads to amusing sites".

Det gøyeste er jo nesten å følge linkene hvis de har skrevet om noe, så viser de til en gøy side, så følger man gjerne de for å se hva det er for noe..

10. "it's difficult to say, it is something though. Some has written more than others, and I have been writing in some more than others, about three weblogs is visited on a frequent basis".

Det har på en måte utviklet seg en viss, ikke sånn særlig heller, noe er det, vanskelig å si. Det er noen som har skrevet mer enn andre, så er det noen blogger jeg har skrevet mer i enn andre, jeg husker ikke. Det er et par tre stykker som har gått igjen.

11. "it's easier to write it down and than have another look later and make things clearer. Writing makes you think in a somewhat different way, it's to some extent experimental writing. One may learn from this along the way".

Det er lettere hvis du skriver de ned og ser tilbake på dem etterpå og ha det litt klarere. Hvis du skriver så får du tenkt på en litt annen måte. Jeg skriver gjerne ting som du ikke er helt sikkert på, sånn blanding av å skrive en oppgave du har tenkt nøye igjennom eller kanskje ikke en oppgave, men noe du kan veldig godt, og så noe som ikke er helt gjennomtenkt, det blir litt sånn prøvende skriving. Man lærer kanskje litt av det underveis.

12. "it was interesting to be able to express yourself in such a way, an easy way being able to communicate with others".

Det var jo interessant, å få kunne utrykke seg sånn, på en rimelig enkel måte kunne kommunisere med folk.

13. "you need an audience to relate to, so after the course some of the intention with the use disappears".

Men det er det med at når du skriver må du liksom ha et publikum å forholde deg til på en måte, og det er jo de som er på kurset. Så hvis ikke kurset er der mer, faller litt av vitsen bort.

Per

1. "But I don't think we really tried everything we were suppose to; ping, URL. I tried at first but gave it up".

Men tror ikke vi satt oss inn i alt vi skulle gjøre, pinge, Url, jeg prøvde, men så ga jeg opp. Jeg tror bloggen ble lagt på is etter det..

2. "I think everybody needs to participate in order to make this work. They haven't".

Jeg tror en forutsetning for at noe slikt skal fungere er at alle deltar, det er ikke gjort.

3. "if I had the insight that I have now, than I think I would have used it more in the beginning".

Hadde jeg hatt den innsikten jeg har nå så hadde jeg nok brukt det flittig i begynnelse.

4. "But then again, I didn't feel competent enough when she started to ask me questions, so I only retrieved information".

Men nok en gang, jeg følte meg
ikke kompetent nok, hun stilte jo spørsmål men jeg kunne ikke svare, så jeg hentet ut informasjon.

5. "It was easier to just ask them questions".

Det er vanskeligere å kommentere synes jeg, det er lettere å stille dem spørsmål.

6. "I never really got started on my reading until at the end of the semester. Then I could have used the blog, answered questions. In the beginning I only had trite things to write about".

Jeg klarte liksom aldri "komme på nett" i det faget, jeg begynner nå, nå kunne jeg faktisk satt meg ned og blogget litt, og svart på ting, for nå vet jeg litt mer.. I begynnelsen hadde jeg bare banale ting å spørre om.

7. "But that were only reciprocally among that group, outermost few has been commenting anything within that weblog".

Men det er kun gruppen deres som kommenterer på hverandre sine blogger, det er ikke så mange utenforstående som kommer inn.

8. "I think that would have done us good, we need a kick in the butt!"

Man trenger et spark i rumpen for å komme igang med noe slikt!

9. because he than has the possibility to write precisely what he want, "although it wasn't mandatory to use it"

Jeg kommer sikkert til å ta det i bruk nå, sånn i ettertid, når det ikke er obligatorisk, vel det var jo ikke obligatorisk men, jeg kan skrive om ting jeg har lyst å skrive..

10. "I didn't want to write about an article just so that others could take advantage of it".

Jeg hadde så mye å gjøre i det andre kurset jeg tok, giddet ikke å sitte å skrive en artikkel for at andre skulle få utbytte av det.

Frank

1. "It worked well in the beginning, people published presentations related to the seminars and such kind of things".

Det funket vel greit i begynnelsen, folk la ut forelesningsfoiler og slikt, linker...

2. "We started to understand why they thought we should use it at the end of the course, but in the beginning it was more like – why should we use this?"

Nå på slutten av kurset ser vi jo hva de kanskje har ment vi skulle bruke det til, men akkurat da var det litt sånn; hva skal vi med dette her?

3. "I visited other students blogs in order to see what they had done".

Jeg var inne for å se hva andre hadde gjort..

4. "The man who blogged during the war in Iraq".

Også den fra bloggeren i Irak, men ikke noe mer enn det

5. but he says that the comments for the most consisted in witty responses to what they had written. "And the same goes for the comments that I have received".

Ja, tulleting, og det samme gjelder de kommentarene jeg har fått, så det...

6. "And when we didn't write much ourselves, we didn't receive any comments from the others either".

Og når vi ikke har skrevet noe særlig selv så har ikke vi fått noen kommentarer av de andre heller

7. "They have found something in a book, and quoted from this, and than contributed with their own opinions. It would be difficult to criticize them without a professor title".

De har gjerne funnet noe i en bok og referert til det, og så sine egne meninger, og masse bøker igjen, så det er vanskelig å slakte dem uten å inneha en professor tittel.

8. "I made some links in the text in the one serious post I wrote".

Det er stort sett det jeg også har, så la jeg inn link i teksten på den ene seriøse jeg hadde..

9. "I could have used it as a homepage, but no, I don't think so".

Kunne jo brukt det som en slags hjemmeside, men nei, tror ikke det

10. He says that he would need to be part of a some sort of community were others make use of the system, who comment on your writing or else it would just be publishing text. "I don't see the point".

Da må du nesten være en del av et slags fellesskap, der andre bruker det og, kommenterer deg og sånn, eller så blir det bare å legge ut det du har skrevet, jeg ser ikke helt poenget med det..

11. "It just faded. We didn't hear form the lecturer in a while, and then there were little contact in relation to the course for a month. Notting happened. And when you didn't read, and didn't have any relations to other people taking the course, then it all became nothing".

Jeg kan ikke huske det en gang, det ble bare glemt, for vi hørte vel ingenting fra foreleser på en lang stund, det var liksom ikke noe kontakt med faget heller, på nesten en måned sikkert. Det skjedde ingeting, og da var det ikke noe, når du ikke leste og du ikke hadde noe kontakt med dem som drev faget, så ble det liksom ingenting...

12. "I think I had the intention of contributing in the beginning".

Ja, jeg tror jeg hadde intensjoner om å bidra med noe i begynnelsen, legge ut ting..

13. "It may be that this were said, but not thorough enough".

Bli klarere på hva som er intensjonen med det. Ikke at det er en ny hjemmeside, at det noe man kan få skrivetrening, samarbeide med andre, få kommentarer, slike ting. Det kommer kanskje frem, men kanskje ikke nok. Mener jeg.

14. "There were resistance among the students in this regard when they talked about making the use of the weblogs mandatory in the beginning of the semester".

Det var jo stor motstand om å gjøre det obligatorisk i begynnelsen, for de snakket jo om det..

Lise

1. "This was fun because it was the only practical thing I had done all year".

Det var ganske gøy for det var det eneste praktiske jeg hadde gjort hele året.

2. "It was more like, what should I write? It should be something reasonable".

Det var litt sånn "hva skal jeg skrive egentlig, det må jo være noe vetig".

3. "I haven't written much, and when I did it was in order to get started. After a while I didn't see the point of using it. I didn't think it was a good tool to use".

Jeg tror ikke jeg har skrevet mer enn tre ting, og det var mer liksom bare for å komme gang. Også når det løy litt på så skjønte jeg liksom ikke vitsen etter hvert. Jeg synes ikke det var noe godt verktøy egentlig.

4. "I don't want everyone in my class, people I don't even know the names of, to know so much about my private life".

Det er ikke noe poeng for meg at alle i klassen som jeg gjerne ikke vet navnet på en gang skal vite så mye om meg, det er litt unaturlig.

5. "I think this was because Walker showed us examples from blogs that were a mixture, and I thought that this was how we should use them".

Altså min oppfatning av hva som skjer på faget, og det tror jeg kommer av Jill Walker sine eksempler, at jeg hadde det veldig i hodet at sånn skulle det brukes, gjerne en blanding.

6. "Especially the ones that belonged to people I hang out with".

Jeg har vært så vidt inne og sett på noen ja, spesielt de jeg er med liksom.

7. ""Have you seen that weblog"?! Then you often take a look".

Det går litt på hvem jeg kjenner fra før, og så er det litt rykter "har du sett bloggen hennes eller, det tar jo helt av!" litt sånn... Så da går man gjerne inn og ser.

8. "I don't find it natural to comment in peoples blog when I hang out with them all day, then I rather tell them in person".

Jeg finner det ikke naturlig når du er med folk hele dagen å skulle gi de tilbakemelding på blogg liksom, da sier man det heller til dem.

9. "We wanted a place to meet contemporary, were we could have published the latest version of things. It takes too much time sending it back and forth".

Kunne tenke oss noe litt mer kollokviegruppe på nett ting, der vi kunne lagt ut de nyeste versjonene, for det er et ork å drive og sende de frem og tilbake, hva er nytt og hva er gammelt..

10. "If everyone had taken the use seriously, and I think they did in the beginning, if that attitude had maintained… But if the use would have been very scientific when this environment is so small…"

Hvis alle hadde vært seriøs, og det tror jeg de fleste var i begynnelsen, hvis det hadde blitt holdt vedlike litt så kunne sikkert vært litt mer.. Men om det hadde blitt så faglig det vet jeg ikke altså når det er så lite miljø.

11. if she read weblogs that are not related to the course she says "no, just Walker's blog".

Nei, bare Jill sin.

12. "I think the weblog has been difficult to follow. I don't find it interesting to read about everything someone has been doing, it's toilsome. Always opening new windows to find what has been said."

Nei, jeg synes ikke jeg fikk noe ut av det, jeg synes bloggene har vært uoversiktlige rett og slett altså... Jeg gidder ikke gå inn og lese på for eksempel en som er veldig aktiv, å lese meg nedover alt han driver med og alt han har gjort. Men det er litt slitsomt, og så skal du åpne nye vinduer for å gå inn og finne kommentarer.

13. "It is more for those who is capable of using their leisure to do this".

Det mer for andre som gjør det i fritiden, så er det jo bra for de i faget som gidder å bruke tid i fritiden til å gjøre dette.

14. "But on the other side, I don't think one should grade something like this, but it may have been useful".

Så jeg tenker at hadde det vært en slags karaktersetting på det, så hadde vi gjerne vedlikeholdt den første interessen for det, men på den annen side, så er jeg ikke helt med på å skulle gi karakter på noe slikt da, men, det hadde gjerne vært nyttig.

15. "You can link to what you want in the blog, but I don't find it natural to find links and send it to other people"

På bloggen, du kan jo linke opp hva du vil, men altså... jeg finner ikke det helt naturlig heller, og skulle drive og linke opp ting og sende til folk.

16. "I don't enjoy receiving much of them either. And I feel that the weblog is some kind of similar system even though it is a more static site were you choose to enter".

Nå er jo ikke jeg den som bruker mest tid på, forran datamaskinen, og sender mail i hytt og pine, ja synes ikke det er så gøy å få sånne mail selv heller... Jeg føler det blir litt det samme selv om det er en statisk side der du selv velger å gå inn, så er det det der at du skal finne ting og linke opp.

17. "If they would have changed the course, and encouraged the use of the blog more. I think that the curricula and the seminars also must follow the development, and when it doesn't…"

Hadde man lagt om litt hele opplegget, der man hadde oppfordret mer til å bruke bloggen, så kan det være det hadde hjulpet og. Jeg tenker at pensum, foreleseningene, mye mer må følge utviklingen og, og når det ikke er sånn så...

1. "I though it was a nice way to express many of the thoughts that one often keep to oneself, and it could in addition function as a log over the work that is done".

Jeg tente litt på ideen egentlig, og synes det var en fin måte å prøve å uttrykke mange av de tankene man sitter inne med for seg selv ofte, og fungere som rett og slett en logg for det man gjør.

2. "In the beginning it was merely positive thoughts around it".

Akkurat i starten var det bare positivt med det synes jeg.

3. "I like to write, but I haven't had any to write for. I don't think it would make a difference if hadn't received any comments in my blog, although it is flattering".

Jeg liker å skrive, men jeg har ikke hatt noen å skrive for liksom. Jeg tror ikke det hadde betydd så mye om jeg ikke hadde fått noen kommentarer i bloggen min, jeg hadde nok blitt smigret.

4. "You don't feel quite anonymous within such a small environment, so you don't want to totally uncover yourself."

Det er kanskje også at man ikke føler man er helt anonym innenfor en sånn liten gruppe at man ikke har lyst til å blottlegge så veldig mye kanskje.

5. "You soon found blogs that rose above the others. There are mainly two weblogs I have been visiting the most because of the content. One of the editors is someone I know in person, and the other I don't know".

Både på det faglige og utenom det faglige fant man fort blogger som hevet seg utover de andre på et sånt interesse nivå, det er vel kanskje to blogger jeg har sett i aller størst grad på. En faglig og en ikke faglig. Innholdet var best, men jeg kjenner en av disse personene også.

6. "I had the idea that we could establish like a leaning community, and collaborate. I tried to be engaged, but it didn't last for long".

og så hadde jeg denne ideen at ja, vi kan kanskje skape et sånt læringsfellesskap og samarbeid. Jeg prøvde å engasjere meg, men det varte ikke så lenge.

7. " I think I saw it as additional time. If I used an hour writing in the blog, then I felt it was, if not wasted time, then at least lost time that I could have been using doing something else".

Men jeg tror det var mest det at, jeg tror jeg oppfattet det som en sånn tilleggstid, altså det var liksom ikke blitt den sentrale biten av arbeidet med faget, sånn at hvis jeg brukte en time på noe blogg aktivitet, så tror jeg jeg ofte oppfattet det som om, ikke bortkastet tid, så i hvertfall litt tapt tid når jeg kunne gjort andre ting.

8. "In the beginning I tried to find sources to use on the Web, and refer to these in trying to get the structure I interpreted that a blog should have".

I begynnelsen prøvde jeg og, om ikke studere andre kilder på nettet, så prøvde jeg å finne dem, og referere til dem, for å få strukturen i det slik jeg oppfattet en blogg skulle være.

9. "Mostly out of curiosity".

Faglig sett var det fra vårt miljø jeg fant linker, men av nysgjerrighet for andre kuriositeter så brukte jeg andre blogger utenfor faget vårt.

10. "If you look at the blogs belonging to the member of my group you'll see that I'm the only one who has written anything the last months. If you look at the interest taken and the engagement given by my group, you'll understand why we don't have a group-blog".

Hvis du ser på de bloggene til gruppen vår, så tror jeg jeg er den eneste som har skrevet noe de tre siste månedene, så hvis du ser på interessenivået og engasjementet fra vår gruppe, så viser vel det hvorfor vi ikke har hatt en gruppeblogg.

11. "But I think it has something to do with how we're used to work. It takes some time getting to work in new ways. Traditionally you hang over a book, or write an assignment".

Men jeg tror det var mest det at man har av og til en sånn oppfatning av hvordan man jobber med et fag, gjennom tradisjonene så lenge man har studert å gått på skole så har det vært over en bok, eller det har vært kollokvie, eller å skrive en oppgave.

12. "It is a paradox that we're not trying to do something about it".

Så lenge vi skriver det i oppgaven vår, og argumenterer for det, så synes jeg det er et paradoks at vi ikke skal prøve å gjøre noe med det selv.

13. "You're afraid of being critical, and choose the easy way out avoiding scientific discussions. Some are frightened to lay open their ignorance, expose themselves to the other students. It's safer to say nothing. This result in less engagement, and the students writes about things they can't be criticized for."

Jeg tror også man ofte er redde for å være kritisk, man velger den letteste veien "dette er bra", uten at det blir noen faglig diskusjon rundt det. Enkelte føler de kanskje viser sin uvitenhet ved å skrive noe, at man er redd for å blottlegge en misforståelse for eksempel, det er lettere å tie. Når man ser noen av inleggene så er det ganske pysete, man skriver noe man ikke kan ta feil på.

14. "I think it has something to do with the physical context, that we know each other, that the environments is so small".

Jeg tror det har noe med den fysiske konteksten at man kjenner hverandre, at det er et så lite miljø.

15. "In order to structure my thought in an environment for my self".

For å strukturere tankene litt i et forum for meg selv.

Appendix F

Norwegian/English Translation

Discussion

This appendix show the English translated quotations compared to the original Norwegian quote from the interviewed students. The English quote is introduced in the same order they have been introduced in the discussion (Chapter 7), following by the original quote in Norwegian.

Thomas:

"I think the main reason for why it didn't work was the habit. Or the tradition when it comes to sharing. You're very focused on your own things when you are studying".

Men jeg tror hovedgrunnen til at det ikke fungerte er vanen. Eller tradisjonen for det å dele, man er veldig sentrert på sitt eget når man studerer.

Thomas:

" but I think that I felt that it was additional time, like it wasn't part of the central work within the course. So if I used an hour in my blog, I think I often saw it as if it wasn't wasted time, then in any case time lost that I could have been using doing something else".

men jeg tror det var mest det at, jeg tror jeg oppfattet det som en sånn tilleggstid, altså det var liksom ikke blitt den sentrale biten av arbeidet med faget, sånn at hvis jeg brukte en time på noe blogg aktivitet, så tror jeg jeg ofte oppfattet det som om, ikke bortkastet tid, så i hvertfall litt tapt tid når jeg kunne gjort andre ting.

Thomas:

"I don't think I thought that I wasn't useful, I think that it was mostly due to the interpretation one has in relation to how one work with a subject. Through the traditions as long as one has studied and been in school its been over a book, or group work, or writing an assignment. I think it takes time to turn this around, or get used to, integrate this in the screen activities, accordingly blogging".

Jeg tror ikke jeg tenkte at jeg ikke hadde nytte av det, men jeg tror det var mest det at man har av og til en sånn oppfatning av hvordan man jobber med et fag, gjennom tradisjonene så lenge man har studert å gått på skole så har det vært over en bok, eller det har vært kollokvie, eller å skrive en oppgave. Jeg tror rett og slett det tar litt tid å snu, eller venne seg til, for å integrere dette i skjermaktivitetene på en måte, altså blogging.

Thomas:

"We have read this about not having a sharing culture, and I can relate a bit to it, that one is holding back"

det er litt vi har lest også dette med at det ikke er noen kultur for å dele, og det kjenner jeg meg litt igjen i, at man holder litt tilbake.

Per:

"It is information that I have been wanting to keep for my self and those nearest to me in order to have most profit from it. One is evaluated as individuals here so it is, at the end, if I can come up with something during the oral examination, which the others can't, then I receive the credit for it".

Men det er også informasjon jeg har villet holde for meg selv og de nærmeste mine for at jeg skal ha mest utbytte av det. Man blir jo evaluert som individ her, så det er jo, til syvende og sist, hvis jeg kan komme med noe på muntlig som de andre ikke kan, så får jeg kreditt for det.

Jonas:

"the scientific information in the course does not hold the same motivating factor as reaching the end-of-term, getting the final grade".

Innholdet i faget har ikke like mye motivasjon som det å bli ferdig med faget, å få karakteren.

Per:

"I had a lot to do in the other course I was attending, wouldn't sit and write about an article only so that others could benefit from it"

Jeg hadde så mye å gjøre i det andre kurset jeg tok, giddet ikke å sitte å skrive en artikkel for at andre skulle få utbytte av det.

Trine:

"In some cases it was like okay, I had done my reflections in regard to literature that I'd read and made some reports or tables, and then I hoped to receive some feedback and comments. In some cases it worked but usually it didn't"

Men i enkelte tilfeller var det slik at okei, jeg hadde gjort mine refleksjoner over litteratur jeg hadde lest og hadde laget noen referater eller tabeller, og da håpet jeg på å få noen tilbakemeldinger og kommentarer, i noen forbindelser fungerer det og som regel fungerte det gjerne ikke..

Trine:

"I feel that my group and I, and a couple of others have contributed. It could have been so much better if more have used the blog. It saves time, meeting in groups is time consuming".

Jeg føler at min gruppe og jeg, og et par andre har bidratt. Det kunne vært så mye bedre hvis flere hadde brukt bloggen. Dette er tidsparende, en kollokvie tar mye mer tid.

Thomas:

"It was nearly reports. I never took the time to ponder that much over, to express it in writing, what had been said and done"

Det var nærmest referat. Jeg tok meg aldri tid til å gruble så veldig over, for å uttrykke det skriftlig, det som hadde vært sagt og gjort.

Jonas:

"When I blog something scientific, it is often things I have thought a lot upon"

Når jeg blogger om noe faglig, er det ofte ting jeg har tenkt masse på

Thomas:

"It may be that one doesn't feel that one is completely anonymous within such a small group that maby one doesn't want to expose that much"

det er kanskje også at man ikke føler man er helt anonym innenfor en sånn liten gruppe at man ikke har lyst til å blottlegge så veldig mye kanskje.

Lise:

"It is not a point for me, that everyone in my class, which I may even not know the names of, knows that much about me. It is somewhat unnatural. I have been writing scientific things with a personal twist, like my comprehension of what is happening in the course, and I think this is due to Jill Walker's examples, that I had this in my head, generally a mixture"

Det er ikke noe poeng for meg at alle i klassen som jeg gjerne ikke vet navnet på en gang skal vite så mye om meg, det er litt unaturlig. Jeg har jo skrevet faglige ting men med en personlig vinkling på det, altså min oppfatning av hva som skjer på faget, og det tror jeg kommer av Jill Walker sine eksempler, at jeg hadde det veldig i hodet at sånn skulle det brukes, gjerne en blanding.

Per:

"At the same time you attend, meet the others all the time. What is the point of writing when you can take two steps to the others on the other side?"

Samtidig så du går jo her, treffer de andre hele tiden, hva er nytten av å skrive når du kan ta to skritt til dem som sitter på andre siden?

Lise:

"I don't find it natural, when you're with someone all day, to give them feedback in their blogs. Then you rather tell them."

Jeg finner det ikke naturlig når du er med folk hele dagen å skulle gi de tilbakemelding på blogg liksom, da sier man det heller til dem.

Lise:

"it is okay enough if you belong to a group with people that aren't there all the time, and that live somewhere else, and then it is much more useful. But, like, when I hang with the same people all the time then…"

Men det er jo greit nok hvis du er på grupper med folk som ikke er der hele tiden og som gjerne bor andre steder, og da er det jo mye mer nyttig, men altså når jeg henger med de samme folkene hele tiden så, ja...

Thomas:

"But exactly within the course then it often becomes, it doesn't function. A bit because one is such a small group that we see eachother every day"

Men akkurat innenfor faget så blir det ofte, det fungerte ikke helt... Litt fordi man er en så liten gruppe at man sees til dagen.

Lise:

"if it for instance were a school in Oslo, a university community doing fairly the same as we. That we in that respect had someone outside, which in some setting should look at ours too, then it would have been more room for discussion"

Hvis det for eksempel hadde vært en skole i Oslo, et universitetsmiljø der som hadde drevet noen lunde med det samme, at vi på en måte hadde hatt noen utenfor som i en eller annen setting skulle se på våre også, så hadde nok blitt litt mer rom for diskusjoner.

Frank:

"one have to have a mad overview to do that, because they have found something in a book and referred to it, and then their own opinion, and a lot of books again, it is hard to slaughter them without having a professor title"

Man må ha en sinnsyk oversikt hvis man skal begynne med det da, for de har gjerne funnet noe i en bok og referert til det, og så sine egne meninger, og masse bøker igjen, så det er vanskelig å slakte dem uten å inneha en professor tittel.

Per:

"the treshold for commenting what others has done feels a bit high in my case, because then I need to have enough background knowledge to do it somewhat properly"

Nja, terskelen for å kommentere det andre har gjort føles litt høy for min del, for da må jeg ha såpass bakgrunnskunnskap at jeg er i stand til å gjøre det på et noe lunde bra nivå.

Jonas:

"Too few students read the weblogs, and when one doesn't receive any response related to what one is writing, one give up the writing. It isn't enjoyable to write when one doesn't get any answers"

For få studenter leser bloggene, når man ikke får respons på det man skriver gir man opp skrivingen, det blir ikke så kjekt å skrive når man ikke får svar fra noen.

Jonas:

"I comment spelling mistakes (laugh..) To show them that I've been looking at their site, feedback on their blog: cool blog, what you are writing there is funny"

Kommenterer skrivefeil (ler..) Littegrann for å vise at jeg har vært innom å kikket, tilbakemelding på bloggen "kul blogg, og det du skriver der var humor.."

Ivar:

"It isn't something I've been doing actively, but you can say that I've commented a bit. Thought that the one that owns the weblog would appreciate a comment, and then they may find it easier to write something on a later occasion. In that regard I may have thought a little about it, but not beyond that I think".

Det er vel ikke noe jeg aktivt har prøvd på, men du kan jo si at jeg har kommentert litt og sånn. Tenkte det at de som eier bloggen sikkert synes det er kjekt å få en kommentar, så synes de kanskje det er lettere å skrive noe annet senere. Sånn sett har jeg kanskje tenkt litt på det, men ikke noe utover det tror jeg.

Thomas:

"In that regard that I haven't tried to force non-bloggers to start, but I've been fairly positive and encouraging towards those who has done it regularly. If that contributes to create a blogging culture, then I think, yes"

Men i den forstand jeg ikke har prøvd å påtvinge ikke-bloggerne til å begynne, men jeg tror jeg har vært ganske positiv og oppmuntrende til de som har gjort det litt regelmessig. Hvis det er med på å skape en bloggingkultur, så tror jeg ja.

Ivar:

"there hasn't been that much scientific activity within the weblogs directly connected to the course. I don't have a feeling of a community, learning community, were one learn from each other, its been a bit like…One think about something, and then someone answers, but not to a high extent"

nå har det ikke vært så veldig faglig aktivitet i bloggene, direkte angående kurset. Har ikke følelsen av et "community", "learning community" hvor man lærer av hverandre, det har vært litt sånn... En lurer på noe og så har en svart, men ikke veldig mye sånn…

Thomas:

"I don't think I've profited scientificly, it has functioned as an example of some of the things we read about, as an example of how it can be done, maybe that is my gain?"

Jeg tror ikke jeg har fått så veldig mye ut av akkurat *det* faget kanskje, det har fungert som et eksempel på noen av de tingen vi leser om, som et eksempel på hvordan det kan gjøres, kanskje at det er det jeg har fått ut av det?

Thomas:

"as long as we write about it in our asignments, I think it is a paradox that we shouldn't try to do something about it. In a way we distance ourselves from what we write about"

Så lenge vi skriver det i oppgaven vår, og argumenterer for det, så synes jeg det er et paradoks at vi ikke skal prøve å gjøre noe med det selv. Vi distanserer oss fra det vi skriver om på en måte.

Per:

"I think it is connected with the fact that too few students used it with the intention the lecturer had, so that some of the collaboration that should have taken place, I feel didn't become, except from Ole who wrote seventeen articles each time. I think that the condition for something like this to work is that everyone participate, they haven't"

Tror det har en sammenheng med at jeg tror det var få som brukte det med den intensjonen foreleser hadde tenkt det skulle være, sånn at litt av det samarbeidet som skulle foregå, det falt vekk følte jeg, utenom Ole han skrev sikkert 17 artikler hver gang... Jeg tror en forutsetning for at noe slikt skal fungere er at alle deltar, det er ikke gjort.

Trine:

"We didn't have any advantage of it, not for other reasons than putting words on reflections, writing practice, and getting over the blocking of publishing their thoughts. Those two things. It hasn't functioned as a group discussion other than within our group and against a couple of others. It's a pity"

For vi har ikke hatt nytte av det, ikke for noen egendel enn at man får sette ord på de refleksjonene, man får skrivetrening, og komme over den sperren at man skal publisere tankene sine. De to tingene. Det har ikke fungert som noen diskusjonsgruppe annet enn innenfor vår gruppe og mot et par andre personer. Veldig synd...

Ivar:

"I have written down some things, put words on some things. It's easier if you write them down and then look at them afterwards, and have it a bit clearer. If you write then you think somewhat differently. I gladly write things that are not for certain, like a mixture of writing an assignment you have been thinking thoroughly through or maybe not an assignment, but something you can well, and then something that isn't completely thought through, a bit like experimental writing. One may learn from this along the way"

Så… nei jeg har jo fått skrevet en del ting, satt ord på en del ting da. Det er lettere hvis du skriver de ned og ser tilbake på dem etterpå og ha det litt klarere. Hvis du skriver så får du tenkt på en litt annen måte. Jeg skriver gjerne ting som du ikke er helt sikkert på, sånn blanding av å skrive en oppgave du har tenkt nøye igjennom eller kanskje ikke en oppgave, men noe du kan veldig godt, og så noe som ikke er helt gjennomtenkt, det blir litt sånn prøvende skriving. Man lærer kanskje litt av det underveis.

Thomas:

"No, I think I have a somewhat personal, not in order to attend within an environment or a group, but maybe in trying to write. Use it as, it gives a reason to write. I like to write, but I haven't had anyone to write for. It is not because of feeling part of a larger group, sort of. I don't think it would mean anything if I hadn't received any comments in my blog, although I would have been flattered, but for the time being it would have been submissive, it would have been personal stimulus, get things out"

Nei, jeg tror jeg har mer et sånn personlig, det er ikke for å delta i et miljø eller en gruppe, men for å prøve å skrive litt kanskje. Bruke det som, det gir liksom en grunn til å skrive. Jeg liker å skrive, men jeg har ikke hatt noen å skrive for liksom. Det er ikke for å føle seg som en del av en større gruppe på en måte. Jeg tror ikke det hadde betydd så mye om jeg ikke hadde fått noen kommentarer i bloggen min, jeg hadde nok blitt smigret, men foreløpig hadde det vært ganske underordnet, det hadde nok vært for personlig stimuli, få ut...

Jonas:

"One needs to do something to make people use the blog. The ones that shall blog should be genuine interested in the course, but when entering a Master one choose at random, knowing little about its aim. If it had become like a engaged community it could function very well"

Man bør gjøre noe grep for å få folk til å bruke bloggen. De som skal blogge bør være genuint interessert i faget, når man kommer på hovedfag så velger man litt fag på måfå, man vet lite hva det går ut på.. Tror det ligner mer på det man har gjort før, men det er jo svært forskjellig. Hadde det blitt et sånt engasjert miljø kunne det fungert bra.

Trine:

"but it needs to be mandatory, one post each week, post presentations in relation to seminars, suchlike things"

Det har potensiale, men da må det være obligatorisk, ett innlegg i uken, poste det man har presentert i seminarsammenhenger, slike ting...

Per:

"I think it would have been beneficial to use the system, if I had used it, and all the others had used it. Succeeded with the use that were the lecturers intention, and I think we would have if the use had been mandatory. One needs a kick in the butt in getting started with the use"

Men jeg tror utbytte kunne ha vært stort om jeg hadde brukt det, og hvis alle andre hadde brukt det, fått til den intensjonen som foreleser hadde i begynnelsen, og den tror jeg han hadde oppnådd hvis den hadde blitt obligatorisk, da tror jeg det hadde vært bra. Man trenger et spark i rumpen for å komme igang med noe slikt.

Frank:

"It could have been a good tool, but I think it has something to do with the course follow-up, they haven't kicked us in the butt. Like the month when nothing happened, then we forgot, and then to start up again is difficult"

Det kunne vært et bra verktøy, men jeg synes det har litt med fagets oppfølging å gjøre, at de ikke har på en måte sparket oss litt i rumpen. Slik som den måneden som gikk uten at det skjedde noe, da glemte vi det, og begynne igjen da så blir det vanskelig.