NEW ROLES FOR THE UNIVERSITY STUDENT. THE STUDENTSs' EVERYDAY TURNS INTO DISTANCE EDUCATION

Hilding Sponberg[1]

Abstract *¾ Distance education has, so far, mainly been implemented for remote target groups needing continuing education. More and more, we find basic education being offered for remote groups. Eventually, we find distance education models being introduced for full-time in-campus students as well. So, what is happening now is, what we never believed: 'The university student turns into a distance education student'.*

The author has been working with distance education for the last 10 years. In this paper, he discusses the various aspects of DE for remote- and local students. Based on own experience, literature and discussions with national and international colleagues he makes the assumption: 'It will become more and more difficult to distinguish between distance education students and in-campus students – there will only be students'.

- *Is it so?*
- *Do we want it?*
- *Can we prevent it?*

Index Terms ¾Distance education for in-campus students, e-learning on campus

INTRODUCTION

Gjøvik University College (GUC) [1] is a higher education institution giving three- and four-year courses within Civil- Electrical- and Mechanical Engineering, Geographical Information Science, Forestry, Nursing, Graphic Arts Technology and Computer- and Communication Technology. From the autumn 2001, a Master Course in *Electronic Publishing and Multimedia* will start up, in cooperation with Royal Institute of Technology (KTH) in Stockholm, Sweden [2]. This is a two-year course being built on top of previous three-year courses within Computer Engineering and/or Graphic Arts Technology.

The course will be open for students from other national university colleges – also open for bachelor students from abroad to join the course through bilateral agreements with international universities.

DISTANCE EDUCATION (DE)

Since the late eighties, our institution has been involved in the development of the use of interactive media (Information- and Communication Technology, ICT) in education such as videoconferencing on ISDN, Internet- and web-based techniques. A number of national and international projects have been implemented through these years. Some of these projects being implementations in order to be able to run 'traditional' courses - by support from remote experts - some being international student projects and some being 'pure' DE projects for remote target groups. In the following a few of these projects will be described in order to *discuss 'who is DE student and who is in-campus student'*.

DECENTRALISED NURSING EDUCATION

In January 1997, 48 students joined a decentralised course in nursing. The students live in outer regions of our county, most of these being in full-time job, having families, being 25 to 45 years of age. The 48 students comprised two groups of 24 students each, from two different regions: One group living 180 km away from Gjøvik, the other about 100 km away. The duration of the course is four years instead of the ordinary three. In 1999 another region joined for a new course (56 km away).

The pedagogic approach includes:

- Full day videoconferencing at regular intervals for the two/three groups, simultaneously (multipoint videoconferencing). The students meet in local resource centres.
- Compulsory small-group meetings twice a week, for projects work, studying videobased lectures, having possibilities for communication with a tutor by load-speaking telephone.
- From time to time, a teacher visit the students in their region.
- From time to time the students visit the college.

Autumn 2000 the first course was completed with quite interesting results:

- The exam results were equal or better than for the corresponding full-time students
- The drop-off from the course was less than for the full-time students

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An important fact must also be mentioned: These nurses (men and woman) will stay in the district covering a great need for health personnel in the area.

We may see how these students, mainly staying in their own region, from time to time appeared in the corridors of the college as 'full-time' students.
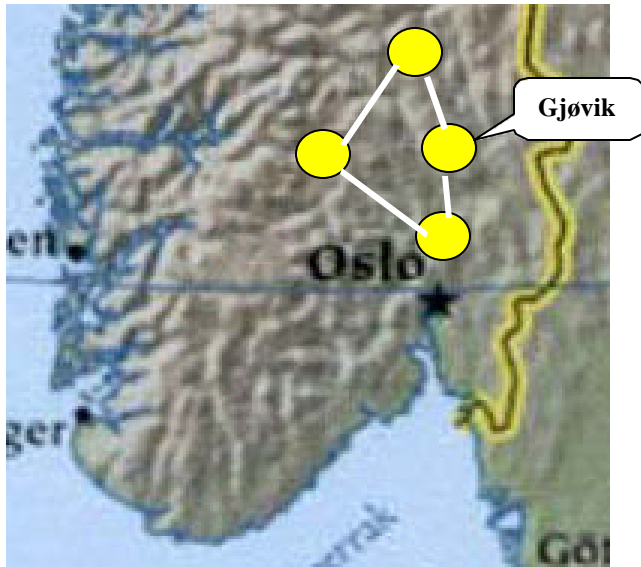

Gjøvik

FIGURE. 1
NURSING STUDENTS IN THREE REGIONS OF COUNTY.

FIGURE. 2
A COLLEAGUE INSTRUCTING NURSING STUDENTS AT THREE SITES THROUGH VIDEOCONFERENCING
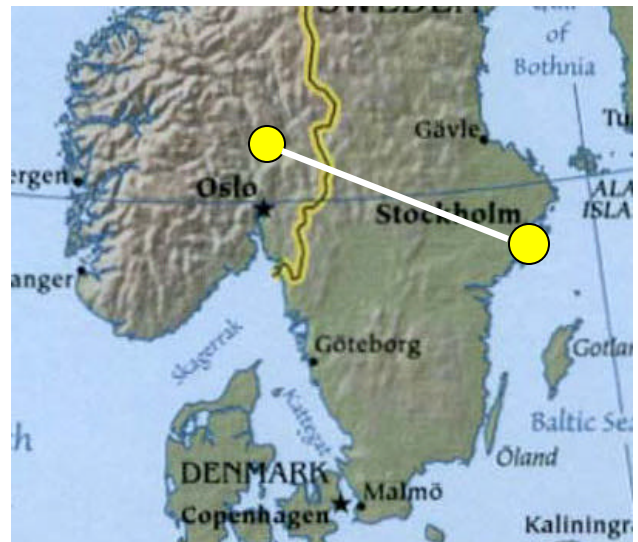
NETBASED MULTIMEDIA

FIGURE. 3
COMMON COURSE BETWEEN GJØVIK AND STOCKHOLM

Since 1997, the course Netbased Multimedia has been implemented for students of Gjøvik College, in cooperation with KTH in Stockholm. The course has it's own web-site for issuing learning material and administrative information [4]. The communication between teachers and students (at Gjøvik and Stockholm) varies between physical meetings with groups, e-mail and videoconferencing.

FIGURE. 4
CREATING TELEPRESENCE TRHOUGH REMOTE INSTRUCTION

The objectives of the course are to give the students a view into a communicative world where their experience and knowledge from this course may be of value for their future employer who may plan: Competence development activities, investing in videoconferencing equipment, remote instruction and process/quality control etc. It is also of interest to make research into the results from a media-based course 'across the borders' such as this course. The students 'invent' new and surprising usages of the technology for a variety of applications. One very important objective is to find solutions and parameters for giving the feeling of 'presence, forgetting the technology used in the communication process. In this way, the course becomes a research-oriented course.

Course Content

The students are trained in pedagogical use of videoconferencing, integrating media tools such as: *Standard cameras, document camera, PC* (web-based performance, PowerPoint, IP-based videoconferencing, CD ROM etc.), *video-mixer* (chroma key, mixing video sources) and *multipoint videoconferencing*. The course constitutes 6 ECT credits and is open for all final year students at GUC. The exams are implemented as group exams (4 – 8 students in each group), running videoconferences connected to KTH where the students' exam project is evaluated by a professor of KTH at distance.

The technology is being used for training the students in the use of it. The author [5] teaches theory and demonstrates practical use of videoconferencing on campus – and organises all practical activities. A colleague at KTH, who has a background as professional TV producer, teach and demonstrates camera technique ('*How can the camera help you in telling your story?*'), sound, lighting, media pedagogy, interactive storey-telling and human interaction (telepresence) [6][7] – all through videoconferencing from Stockholm.

During the spring term 2001, 130 students of Gjøvik College and 8 master students of KTH followed the same course. During weekly four-hour videoconference sessions, lectures are given partially from Stockholm and partially from Gjøvik. Mostly, the lectures take place in the form of dialogs between the two sites. During last half of the semester, there are no formal lectures, only exam project planning under guidance from the author in Gjøvik and his colleague in Stockholm. 19 exam groups are going through separate exams on chosen topics. Since 1997, more than 300 students went through this course.

So, who are DE students and who are in-campus students?

LARGE NORDIC STUDENT PROJECT

Through a number of years, university colleges from each of the countries, Finland, Sweden and Norway (Gjøvik) has been implementing joint projects within Information Technology [8]. All together, about 30 students participate each year. This large group subdivides into smaller groups of 4 –5 students each taking on part-tasks of the project. Main lectures are mostly given from the Swedish university college at the beginning of the project period. In each of the participating university colleges there are tutors who guide and support the students. The student project groups communicate by videoconferencing and Internet.

So, who are DE students and who are in-campus students?

FIGURE. 5
LARGE SCALE IT-PROJECT BETWEEN NORWAY, SWEDEN AND FINLAND. UNIVERSITY COLLEGES OF GJØVIK, DALARNE, ÅLAND AND EKENÄS

FIGURE. 6.
THE COURSE SITE FOR THE NORDIC PROJECT

PROJECT NORWAY - ESTONIA

During 1997 – 98, a course in Netbased Multimedia [9] was given by the author, and a colleague at KTH, Stockholm, for 7 students of Tallinn Pedagogical University in Estonia (TPU) [10]. The project was implemented in cooperation with a colleague at TPU and was supported by the Norwegian Research Council. Partly the author was present at TPU and partly lectures and discussions were implemented in the
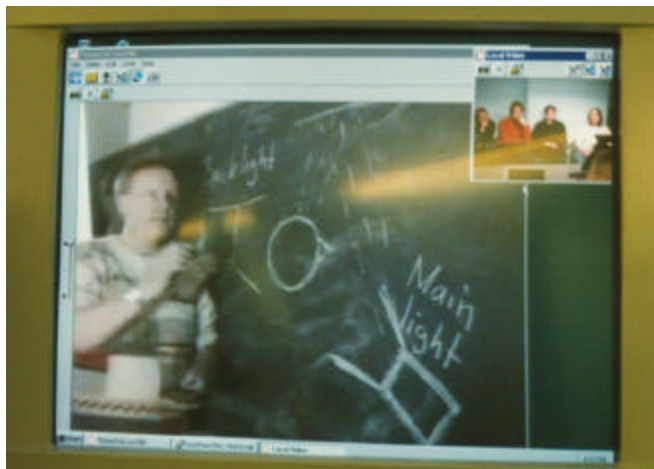

FIGURE 7
TEACHING CAMERA TECHNIQUES FROM STOCKHOLM TO
TALLINN. THE BLACKBOARD IS STILL USEFUL

FIGURE. 8
COOPERATION BETWEEN GJØVIK, STOCKHOLM AND
TALLINN

form of videoconferences between GUC and TPU – and between KTH and TPU - supported by the tutor at TPU. Partly these students were in-campus students for this course – however, mostly DE students relating to the course.

So, who are DE students and who are in-campus students?

FIRST DISCUSSION

We see a tendency in Norway, that 'full-time students more and more become part-time students in the sense of the word that they may go through the learning process not always following lectures in a lecture hall. Support is given by teachers and tutors at distance using Elearning platforms and/or videoconferencing.

(We must inform the reader that, in Norway, attendance at theoretical lectures is not compulsory).

E-learning platforms become Intranets for courses where videobased lectures, any type of learning material may be loaded on the system servers - and synchronous/ asynchronous communication between students and between students and teachers may be used.

Such organisation of courses, lead to more activity among the students. The students learn to take responsibility for their own learning process and we, thereby, support the pedagogic theory:

'Students own activity pushes the learning process'.
This is the same method used for DE students.

So, my statement: 'More and more, there will be difficult to distinguish between in-campus students and distance education students'.

A SMALL RESEARCH

On one hand, the author makes some conclusions from observations and experiences from his own institution, Gjøvik University College. On the other hand, it is of interest to examine the situation in an international context. The author, therefore, made two investigations for this purpose:

1. A search on Internet among a number of universities over the world in order to find information about possible use of e-learning for in-campus students.
2. Interviews with staff of a few international universities

Search on Internet

About ten university web-sites where examined for information about e-learning methods for in-campus students. The result was rather negative. Most of the visited sites had lots of information about the university's activities
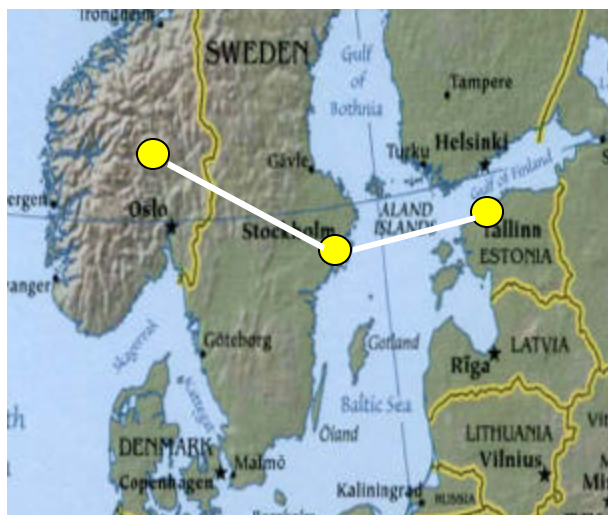
within distance education for *remote groups.* The author found everything from complete education over 45 years down to short courses of six ECT credits. However, no information about flexible pedagogical approaches, based on e-learning for the full-time, in-campus students.

However, expressions of visions and wishes for future enhancement of the teaching process were found, such as:

….. is emerging as a leader in using technology to enhance student learning.

…..has installed a fibre-optic network connecting our campuses to support the Institute's many online training initiatives and provide increased bandwidth for future applications.

….modernise the teaching process (applying information technology and methods of active learning…….).

….realise the model of an open university

…..extend and diversify the forms of complementary and distance training

…..rationalise the teaching process (increasing the number of courses of lectures, reconciling curricula, increasing the role of individual work, etc.)

…..moving quickly to harness the power of the World Wide Web to make learning more accessible for students.

….. using websites to deliver instructional materials that will enhance students' on-campus experience

….. students will have access to rich resources such as digital learning outcome guides, multi-media materials, interactive tests and discussion boards.

….. a large number of our distance courses are given to study centres via videoconferencing. Videoconferencing is often supplemented with data communication and e-mail. For some of these distance courses we may meet the students at the university, usually during week-end meetings.

…. through distance education, with different models, the university is available in larger regions, at the same time as distance education is an important possibility for making special curricula available nationally and internationally.

…. there is a constant and organised work that engage teachers, students and other personnel, developing curricula, pedagogic models and the learning process.

…. the university work with a distance model where teachers should implement both campus courses and distance courses. The model, also, cover different support activities for the implementation of interactive, netbased distance education.

Four interviews

In order to obtain a more precise information, interviews were made with four people from four large universities - one in Canada, two in Sweden and one in Estonia.

The idea was to obtain more precise indications of the use of e-learning on campus in an international context. The extension of the use of e-learning was not an important issue this time – though the question was asked during the interview.

The interviewed persons belong to limited environments within their university and did not possess overview of the total situation at the university. However, within such 'closed' circuits we find, absolutely, interesting e-learning activities on campus. In all of the four cases, they could certify the use of e-learning on campus – even so in a broad sense when used.

SECOND DISCUSSION

From the survey on Internet, we can see there is no definite or general policy on behalf of the whole institution, as regards the introduction of or use of e-learning as part of the learning process. However, the observed, somewhat vague statements, demonstrates a 'careful' attitude and visions about another future. We must expect that there is often a heavy resistance against changes from traditional to new pedagogical thinking. Therefore, a heavy and general policy on behalf of the whole institution is carefully treated.

THIRD DISCUSSION

The interviews fully underpin the author's belief that 'things happen'. Within more closed circuits of universities we find researchers and new-thinking people who make experiments on e-learning on campus, which may lead to more general use – if found valuable and applicable.

We also see that e-learning is used for a broad variety of purposes, such as:

- Pedagogic reasons
- Content (storing learning material)
- Administration
- …and students perspectives

We did not distinguish between different forms of e-learning, only including what was used in the form of digital handling of activities in the learning process. However, one university had a clear policy on the use of e-learning platforms that include:

- Storing learning material
- Synchronous and asynchronous function for interaction between students and between students and teachers.
- Administrative functions and statistics
- Evaluation and tests

As regards extent of the use of e-learning one university stated that: "Within the year 2003, 20 % of all courses should be available on-line. Further, within the year 2002, 100 % of all the courses within Computer and Systems Technology (CST) should be available on-line.

All four universities agreed to closer cooperation and deeper and more qualified investigation within their activities in e-learning, at a later stage.

CONCLUSION

This paper does not pretend to give a complete and qualified overview of the situation of e-learning among universities. The idea is to raise discussions and questions based on indications and, to some extent, more precise information in some cases. The author intend to go into deeper research in the matter and hope to be back "next time" with a more qualified paper.

Finally, some few conclusive remarks:

- Using e-learning platforms on campus is not used to a large extent.
- Only limited groups of faculties within a university implement such methods.
- Use of web for storing learning material is the most common application, so far.
- The pedagogic methods used in universities are not mentioned to any extent on any of their web-sites.

I will conclude my paper, referring to a report [11] from the Norwegian Research- Academic - and Special Libraries [12]:

'Education and learning move in a direction towards greater flexibility. The term 'Flexible Learning' is used more often than 'Distance Education'. This implies small amounts of distance education, together with traditional teaching on campus. We will se a combination of group work, classroom teaching, distance education on web or common lectures with students around the world, being lectured by unique international specialists within particular subject areas, from anywhere in the World'.

REFERENCES

[1]   Gjøvik University College, URL: http://www.hig.no

[2]   Royal Institute of Technology (KTH), URL: http://www.kth.se

[3]   Sponberg, H, Knudsen, C, Handberg, L: "New Learning Modes in the Production of Presence – Distance Techniques for Education", D-2001 proceedings, Düsseldorf, 01-05 April 2001.

[4]   Netbased Multimedia, Course site: http://studenter.hig.no/course/nmm/nmm%20portal.htm

[5]   Sponberg, H, URL: http://w3.hig.no/~hildings

[6]   Enlund, n: "The Production of Presence –

[7]   Distance Techniques in Education, Publishing and Art", ACS'2000 Proceedings, Szczecin, 2000,pp. 44-49.

[8]   Nordic Student project, URL: http://www.atl.aland.fi/pop2001

[9]   Virkus,S/Sponberg,H: "Collaborative Learning and Teaching: A Net-based Multimedia Project between Estonia and Norway", Proceedings of the 1999 Telecommunication for Education and Training Conference, Gjøvik 1999, pp 154 – 158.

[10]   Tallinn Pedagogical University, URL: http://www.tpu.ee

[11]   Bibliotekets rolle i fjernundervisning på universitets- og høgskolenivå. Webbaserte bibliotekstjenester, 1997, ISBN 82-7195-151-3

[12]   Norwegian Research- Academic- and Special Libraries, URL: http://info.rbt.no

FIGURE. 9
WE EVEN TRIED REMOTE INSTRUCTION ON VIOLIN – WITH SUCCESS

FIGURE. 10
CREATING THE FEELING OF PRESENCE BETWEEN GJØVIK, STOCKHOLM AND TALLINN