## The use of distributed electronic classrooms in the teaching of language and literature

Harald Ulland and Geir Pedersen

Harald Ulland, Department of Romance Languages, Section of French, Sydnesplassen 7, N-5007 Bergen, Norway

Geir Pedersen, Center for Information Technology Services, Research and Development, Gaustadallén 23, P.O. Box 1059, Blindern, N-0316 Oslo, Norway

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AFFILIATION: University of Bergen, Norway &

University of Oslo, Norway

E-MAIL: harald.ulland@roman.uib.no

geir.pedersen@usit.uio.no

FAX NUMBER: + 47 55 54 42 60 PHONE NUMBER: + 47 55 21 22 77

## The use of electronic classrooms in the teaching of language and literature

In 1994, an electronic classroom was installed at the University of Bergen in order to try out a new system of distance education via the Internet. This was the third electronic classroom of this type installed in Norway and the first one located at a Faculty of Arts. The Departments of Romance Languages at the Universities of Oslo and Bergen were interested in testing the electronic classroom system (ECS) in language and literature teaching. In this paper I (H.U.) will give

- (a) a short description of the electronic classroom (based on information given by Geir Pedersen at the Center for Information Technology Services at the University of Oslo) and
- (b) a report of my own and some of my colleagues' experiences as users of the ECS. A demonstration of the ECS will be given at this conference.

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The ECS is a system linking two lecture rooms equipped with audio, video and an electronic whiteboard over the Internet. It has been developed by the Center for Information Technology Services at the University of Oslo in collaboration with Telenor research and The University Studies at Kjeller. The ECS lecture room looks much like an ordinary classroom, but there are of course some important differences. It is, for instance, equipped with microphones mounted in the ceiling and with loudspeakers. There are also two video-cameras, one

at the back of the classroom focusing on the teacher, and another in the front of the classroom focusing on the students. A teacher's console based on a touch-screen with an easy-to-use visual interface allows the user (the person giving the lecture) to configure and operate the classroom. The most important technological component, however, is the electronic whiteboard, which can be written on using a special pen. Whatever is written is simultaneously displayed on the electronic whiteboard in the distant classroom. Paper-based material may be brought in during a lecture by means of a scanner connected to the electronic whiteboard. It is also possible to bring any information on the World Wide Web into the classroom, the electronic whiteboard acting as an interface. The students can view persons in the remote classroom on a back-projected image to the right of the electronic whiteboard. This image is also shown on a monitor placed at the back of the classroom in order for the teacher to view the remote classroom. Communication between the classrooms takes place over the Internet.

Shortly after the installation of the electronic classroom at the University of Bergen we started giving university level courses in French language and literature to two groups of students simultaneously, one in Oslo and one in Bergen. At the same time, a project team was established, with representatives from the two Departments of Romance Languages as well as technological experts. In the autumn semester of 1994, a course in translation theory was given by a lecturer from Oslo and a course in French lexical grammar was given by a lecturer from Bergen (the author of this paper). In the spring semester of 1995, there were courses in French Canadian and French African literature, as well as in Italian syntax, with lectures given both from Bergen and from Oslo. In the autumn of 1995, there was a course in French African literature with cooperative teaching including a visiting researcher from the University of Paris XIII.

One of the aspects which distinguishes this project from other distance learning projects is the fact that it includes two groups of students, one group in the same classroom as the teacher, the "local" students, and another in the remote classroom, the "remote" students. The possibility to communicate in an interactive manner with two groups of students at the same time is one of the advantages of the system. The electronic classroom is especially useful when specialist competence is located at one institution and not available at the other one. This is, as we know, often the case. The remote students are thus given access to courses they could not have participated in otherwise. The system also gives some advantages for the local students, because to a certain degree the technology, especially the electronic whiteboard, adds

functionality that is not present in most ordinary classrooms.

For the teacher there seems to be some minor disadvantages. He or she will normally have to spend more time than usual preparing the course. Giving the lectures may also be looked upon as more problematic than in a traditional university course. Many teachers who are used to traditional "talk and chalk" might have problems using the electronic equipment. And there is always the fear that some part of the system may fail, distortion of the sound and similar things, which may increase the teacher's nervousness or stage fright. Coping with two groups of students at the same time is another problem. You have constantly to remind yourself that you should be talking to both groups. It is very easy to forget the remote student group if you don't take a look at the monitor showing the remote classroom from time to time.

As for the students and their feelings and reactions, one gets the impression that in the beginning, many students are somewhat afraid of the electronic classroom and its equipment. If they are not very eager to talk, and ask questions, in an ordinary classroom, you can be fairly sure that their willingness will not increase during their first session in an electronic classroom. However, when the students get used to the microphones, video cameras and the electronic equipment, the system allows for some interesting discussions between two groups of students at different locations.

Although this system has been tried out with two groups of students, local and remote, nothing of course prevents the use of electronic classrooms for a group of remote students only. This might be an easier situation to deal with for the teacher. What is important to bear in mind, however, is that being a remote student will always be a disadvantage compared to being a local student. It will always be better to listen to a "live performance" and have the teacher in the same room as yourself. The main advantage of the electronic classroom system is the possibility it gives for students to attend specialist courses they would not otherwise have been able to attend, because the expertise is located at a different institution. And a constant improvement of the technological concept will hopefully contribute to bridging the gap between remote and local students.