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# 'Communicate and Learn' - a collaborative project

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## Abstract
The 'Communicate and Learn' project is a collaborative project between East China Normal University, China and University of Twente, The Netherlands. The project is supported by the AT&T Foundation and the objectives of the project are to redesign and implement two distance courses in the field of educational technology for use in a networked learning environment in China. The background of the project, major objectives of the project, and organization of the project will be of interest to policy makers in developing countries. Current research results and some emerging problems of the project will provide guidelines for work on similar projects in other countries.

## Keywords
Collaborative learning, communication, distance learning, networks

# 1      INTRODUCTION

In 1995, The AT&T Foundation announced an 'AT&T Global Distance Learning
Initiative' program and called for project proposals from all over the world. The
major objectives of the program were to encourage global distance learning
programs using interactive communications technologies, and to encourage
collaboration and technology-based distance learning projects between institutions,
countries and continents. The announcement also provided the criteria for
eligibility. The criteria included: participating institutions must be universities or
institutions of higher education and they should have some experiences of using
technologies in education; project proposals must involve at least two or more
institutions - preferably from different countries; and proposals from some countries,
such as Brazil, Canada, China, France, Mexico, and Japan, were strongly
encouraged.
   The Department of Educational Information Technology (DEIT), East China
Normal University (ECNU), China and the Faculty of Educational Science and
Technology (FEST), University of Twente (UT), The Netherlands have had a long
and good cooperative relationship over the last decade. Both departments (DEIT
and FEST) are cooperating on different educational research issues and have
formalized their willingness to cooperate in the AT&T project in a 'Letter of
Intent'. One main area of cooperation is the field of instrumentation technology -
the use of media, computers, and telematics for education. That is why the DEIT
and FEST agreed upon a more detailed 'Letter of Intent' in which both institutes
provided more detailed specification of the cooperative activities in which they
engage. The general objective of the latest 'Letter of Intent' was the development of
a cross-institutional program to enable the FEST and the DEIT to further improve
the design and use of instrumentation technology. A project proposal,
'Communicate and Learn', was developed by the two departments and was
strongly supported by the AT&T Foundation.

# 2      OBJECTIVES OF THE PROJECT

By combining both developments in the project, each partner expected to
strengthen the other. The general objectives of the 'Communicate and Learn'
project are:
*   to redesign and implement two distance courses devoted to educational
    technology and distance learning;
*   to select ten key Chinese universities as network-users for testing and
    evaluating the two courses;
*   to constitute a foundation for the further transfer of knowledge and skills
    between the DEIT and the FEST in the use of technologies for distance
    education;
*   to gain insight in the use of communication technologies in order to design
    and deliver a distance educational programs about educational technology.

The two courses on which the project is based are Human-Computer Interfaces
(HCI) and Authoring Systems. The redesign must lead to two distance courses that

fit into context of Chinese educational networking. The redesign and implementation of the two courses is considered a foundation for the further transfer of knowledge and skills between the FEST and the DEIT, and from the DEIT to other Chinese universities. Finally, the redesign and implementation provides the two institutions use of communications technology in education.

## 3      ORGANIZING THE PROJECT

In the project, four major phases can be distinguished. If obligatory, a discussion of the phases will result in a report of activities.

*First phase of the project*
The first phase (January 1996 - December 1996) of the project was concerned with the redesign of the two courses - Human-Computer Interfaces (HCI) and Authoring Systems - with respect to educational technology. Two tasks were accomplished in the first phase:
- the first task involved requirement analysis, analyzing the context in which the course were going to be delivered, and course specification, analyzing the courses to be delivered. Tasks were carried out at the FEST by two educational researchers from the DEIT and one researcher from the FEST;
- the second task was related to the real design or coding of the two courses. The tasks were carried out at the DEIT by one educational researcher from the DEIT. During this step, support was given by research from the FEST using communication technology .

*Second phase of the project*
The second phase (January 1997- July 1997) of the project concerned the real implementation of the two redesigned courses by the Chinese Educational Network. Delivery was under the auspices of the DEIT, where students from the other key universities were invited to follow the course. In the first month, January, implementation at the DEIT was supported by a researcher from the FEST. Results will be described in two reports of activities. The DEIT is responsible for the production of the two reports.

*Third phase of the project*
The third phase (August 1997 - October 1997) of the project concerns the evaluation of the design and implementation of the two courses. A workshop in Shanghai will be held, in which representatives from ten universities will be involved. The data from the workshop will be collected on the following aspects of the project:
- the quality of the courses - including some usability aspects ;
- the number of students who follow the courses and the number of universities involved;
- the opinion of the teachers and students about the implementation of the courses.

* recommendations and guidelines for further (re-)design and implementation of distance courses in the Chinese Educational Network.

## *Fourth phase of the project*
The last phase (November 1997 - December 1997) will be concerned with the evaluation of the entire 'Communicate and Learn ' project and will result in a final report.
   Indicators of success will be:
* the successful design and implementation of the two distance courses;
* the experience in the use of communication technologies as a result of the (re-) design and delivery of the distance educational programs;
* the agreement between the Department of Educational Information Technology and the Faculty of Educational Science and Technology which will serve as a foundation for the further transfer of knowledge and skills.

The final report will describe the results of the project but will also describe the problems encountered during the project. The impact of the project on the two institutes directly involved will also be described.

## 4      CURRENT RESULTS

As of July 1997, the second phase of the work was completed and some current results can be described as follows:
* the redesign and development of the two distance courses (fully in a Chinese version) was completed and the two courses are accessible through the Chinese Educational Network or the Internet;
* the cooperation between the two departments was very successful - both learned a great deal from each other with respect to methods, technologies and even cultures -Western and Chinese;
* ten key Chinese universities are satisfied with the distance courses, and are using and testing the courses through the Chinese Educational Network;
* two workshops devoted to distance learning were held during last year, with over 60 universities involved, and this year ten key universities in China are participating. The project has stimulated many Chinese universities to start research on distance learning.

## *Emerging problems and future impact*
Although the research and cooperation of the project was successful, there were several problems, which will be discussed in detail in the final report of the project. Several key issues are:
* copyright issues related to the knowledge transfer between different institutions;
* technical issues such as end-users' platforms, access speed for pictures or graphics;

- maintenance issues such as on-line service, hardcopy materials for learners and post-project maintenance of all aspects of the project after the project ends;
- the limited number of available Chinese - in Chinese versions - courseware for the Chinese Educational Network.

The impact of project on the two institutes involved is expected to be large. The project is expected to function as a catalyst for further cooperation between the DEIT and the FEST. Naturally, communication technology offers the opportunity to establish cooperation and, in addition, the technology enables the two institutes to present educational programmes at a distance.

Of course communications technology has functioned as a central topic of discussion in both departments recently. Clearly the central role of communication technology will have a large impact on the further cooperation between the two institutions. In general, the major role of the FEST in further cooperation is to transfer knowledge and experience to the DEIT about the use of interactive communications technology for educational purposes. The role of DEIT is to transfer knowledge and experience about the design and implementation of distance courses in China to the FEST. In addition, the DEIT is responsible for the transfer of knowledge and experience about the use of interactive communication technology for educational purposes to other key Chinese universities, who are interested in the use of interactive communication technology for educational purposes. Through the project, the DEIT will have gathered good experience and will be in a position to assume a leading position in the use of telecommunications for educational use in China.

## 5    BIOGRAPHY

Prof. Dr. Zhang Ji-Ping graduated from the Department of Physics at East China Normal University in 1977 and received his Ph.D. degree from the University of Twente, The Netherlands in 1996. His major research interests involve computer-based learning, multimedia-based teaching system design, distance learning, and instructional approaches and theory. He has published many papers and books about educational technology and computer use in education.

Currently he is the chairman of Department of Educational Information Technology and the director of the Modern Educational Technology Institute at East China Normal University. He also is a member of the board of the Society of China Computer-Based Learning.