

Report on the winning entries for the



Geneva State Open Competition on the Use of Telecommunications in Education and Training

(August 1993)

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Suisse



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PREFACE

Martine Brunschwig Graf

*Secrétaire romande de la
Société pour le développement de l'économie suisse*

Computer-assisted teaching and learning are now established as important components of the new approaches to education which will play a major role over the coming years. Switzerland is not a member of the EEC and will not be a member of the new European Economic Area. Our country will not therefore benefit from the advantages derived from the free movement of people, goods and services. But this is an area where technology can overcome barriers when politics have failed, allowing our young people access to training and educational resources without the impediments of customs formalities and other restrictions.

The variety of the projects submitted to this competition, the quality of the thinking on which they are based and the creativity of their authors all provide a rich source of inspiration and encouragement for those educators in Geneva who are working to develop new technologies and processes.

We will benefit from technology only if we can master it and exploit its power intelligently. In itself, educational technology is mere technology, but wisely used it is a precious resource indeed. Of course, interest in these new technologies extends beyond schools to professional training, as is confirmed by the fact that private companies have sponsored this competition.

Organising this competition has allowed us here in Geneva to learn from the results of some of the most interesting and forward-looking work in the area of educational telematics carried out around the world. The organisers are to be congratulated on having made this possible at a time of severe cutbacks in public expenditure.



Introduction

55 registrations were received from all parts of the world for the competition organised in 1992 by the Education Department of the State of Geneva to encourage investigation into the use of new telecommunication technologies in education and training. Written essays were invited from individuals or groups on an open and international basis which described original designs for the use of new technologies in an educational or training setting, including innovative extensions or applications of existing systems.

Entries were judged by an invited jury in consultation with a panel of experts and the main prizes, awarded at a public event in May 1993, were round-the-world airline tickets. The competition report was first published in Geneva in French for distribution at the award-giving ceremony and is available on request from the Centre Informatique Pédagogique (CIP), CP 172 1211 Genève 3, Switzerland. This English version has been prepared for distribution at the International Conference and Exhibition "Teleteaching '93" at Trondheim, Norway in August 1993.

This booklet describes the 13 prizewinning entries which were chosen by the jury from the 33 essays submitted by the closing date. Names and addresses of the winners are listed so that future contact can be made by interested parties. Also a brief summary is included, outlining the main features of each winning entry, followed by comments from the experts on the quality of the essay.



The Jury (*) and the Organizing Committee ()**

- * Martine BRUNSCHWIG GRAF
Société pour le développement
de l'économie suisse
(Genève)
- ** Claudine CHARLIER
Centre informatique pédagogique
(Genève)
- * Pierre DUGUET
Organisation de coopération et de
développement économique
OCDE / OECD
(Paris)
- ** Raymond MOREL
Centre informatique pédagogique
(Genève)
- * Marino OSTINI
Office fédéral de l'éducation
et de la science
(Berne)
- * Pier-Paolo PUGNALE
cartoonist (PECUB)
(Aubonne)
- * Véronique SIEBER
Fondation place financière
(Genève)

List of the experts

François BUGNIET	Dispositif de recherche de l'enseignement secondaire post-obligatoire
Claudine CHARLIER	Centre informatique pédagogique
Fiorella GABRIEL	Centre de recherches psychopédagogiques du Cycle d'orientation
Raymond HUTIN	Service de la recherche pédagogique
Patrick MENDELSON	Université de Genève
Raymond MOREL	Centre informatique pédagogique
Georges PASQUIER	Société pédagogique genevoise
Henri SCHAERER	Service informatique de l'enseignement primaire
Philip SWANN	Université de Genève

Role of the experts:

1. Definition of evaluation criteria
2. Critical reading and evaluation of the essays
3. Classification
4. Short list
5. Contributions to the reports (French and English versions)



Sponsors

The competition was made possible by the interest and generosity of the following organisations:

A.S.T. RESEARCH (Suisse) S.A.

BOURSE DE GENEVE

BULL (SUISSE) S.A.

DIRECT SOFTWARE - ARTEZA (HEWLETT-PACKARD) S.A.

INDUSTRAL A.G.

SWISSAIR

TELECOM PTT

This support allowed us to organise a wide-ranging competition with substantial prizes, and publish the results.

It also encourages us to continue our work in this field.

Subjects proposed by the participants at registration

- 1) CHRISTIAN POINTET: "Correspondance scolaire avec le Québec — histoire d'une expérience télématique." Suisse
- 2) MICHAEL IRETON : "The use of telecommunications to create a community school that will serve children through adults." USA
- 3) JOSEPH S. DIGREGORIO : "The Pennsylvania State University Telecommunications Program in Acoustics." USA
- 4) HARRY WARREN DAVIS, Jr. : "A Day of Discovery." USA
- 5) • ANDREW I. HENNESSEY : "Facilitation of Learning in Correspondence Science Teacher Education Activities: An Assesment of the Use of a Two-Way Shortwave Radio." USA
- 6) • JOSEPH G. DAVIS : "A Multi-Level, Computer-Based Environment of Cooperative Learning in Management Studies." New Zealand
- 7) • PATRICE DELPIN : "Clio Vous défie!". Suisse
- 8) • FINN SPARSØ : "The use of telecommunications technologies in education and training." Denmark
- 9) • LALITA RAJASINGHAM : "The Design Implications for a Telelearning System in New Zealand." New Zealand

Telecommunication in Education and Training



- 10) • WILLIAM L. BURRALL JR. : "Using Telecommunications to Understand Society's Problems: Evaluating Causes and Exploring Solutions." USA
- 11) ANDRE ROMBAUTS : "DIDACnet: Un réseau télématique scolaire expérimental." Belgique
- 12) • THOMAS J. DZICEK : "Joint Venture: educational style — Our Exchange Partner School in Moscow and my School the Capt." USA
- 13) • MERLE MILLER MARSH : "Beyond the Classroom Walls: A Telecommunications Training Project for Precollege Educators." USA
- 14) GLORIA M. CATHCART : "Children Using Telecommunications In The Classroom." Canada
- 15) • ROBIN IRVING BAIN : "The use of CD-ROM to provide information for children in rural schools in New Zealand." New Zealand
- 16) JOHN ALBERT KRAAER : "Use of electronic post in the subjects Danish, English, German, Social Studies and in History." Denmark
- 17) MICHAEL DAVID SWIFT : "The delivery of a Maori language course to Marae, schools and prisons nationwide using the Telecommunications technology." New Zealand
- 18) LIS KORNUM : "Use of electronic mail and computer-conferencing in foreign language teaching and learning plus interdisciplinary projects." Denmark
- 19) ERIC JOSEPH DEAN STANLEY : "The pilot of a school and teacher development model which makes extensive use of teleconferencing, e-mail and facsimile technology." New Zealand

• : final entry received; the entry number corresponds to the order of receipt

- 20) • AVIVA ADIR : "The H.O.P.E.S Network (Helping Offenders Pursue Educational Solutions)." USA
- 21) • GIDEON GOLDSTEIN : "Instructional Considerations in Devising a Telecommunication Network for Schools." Israel
- 22) • MARGARET M. RIEL : "Learning Circle Connections across Classrooms: Building a New Foundation for Global Communities." USA
- 23) • RICHARD HOTTE : "Encadrement assisté par ordinateur et formation à distance." Canada
- 24) JEAN-PHILIPPE MARTIN : "Le petit dalleur." Suisse
- 25) JANET K. POLEY : "Breaking through one way barriers — interactive, responsive, interconnected ways to link people and create new learning with policy, program, development and personal implications." USA
- 26) • KATHLEEN R. SMITH : "World Window: A Look at Grassroots Telecommunications in the Classroom — an Essay on the Use of Telecommunications in Education." USA
- 27) • W.R. (BILL) KLEMM : "THE FORUM: A Unique, State-of-the-Art Computer Conferencing Environment for Small-group Tutoring and Collaborative Learning." USA
- 28) • ERNST ELSENER : "Agence de presse pour élèves — Presseagentur: MICRO-UPI = United Pupils International." Suisse
- 29) K.S.R. ANJANEYULU : "System to conduct courses in a University environment or over a network in order to provide an effective learning environment." India



- 30) RIRI SATRIA : "Plan to develop a kind of electronic class to support the teaching and learning process." Indonesia
- 31) • FIORENZA SCOTTI : "Chioschi per l'educazione alla salute e all'ambiente realizzati mediante sistemi iper-mediali." Italia
- 32) • GIEDO J. L. CUSTERS : "Le serveur électronique public mis au service de l'enseignement du français langue étrangère." Belgique
- 33) • JOHN WEIGHTMAN TIFFIN : "The New Zealand Telelearning Network: The Design of a National Telecommunications Network for Instruction." New Zealand
- 34) • JENS PEDER WEIBRECHT : "Les mystères du lycée de Nørresundby." Denmark
- 35) • PIOTR KACZMARZYK : "A computer network, which allows communicating among any number of users." Poland
- 36) • GWEN GAWITH : "Information literacy through information technology: teacher development project (NEW ZEALAND)." New Zealand
- 37) • MARTIN GEORGE RICH : "The Use of Electronic Mail and Conferencing Systems in Teaching Management Students." United Kingdom
- 38) MARTIN LARSEN : "Giving the student great possibilities of understanding other cultures around the world." Denmark
- 39) JANNE LARSEN : "My personal experience with the modern process of human-computer-interaction." Denmark

- 40) EVA REYNOLDS : "The use of Telecommunication in Education and Training." USA
- 41) TANYA WOOD MOLLENAUER : "Telecommunication in education and training." USA
- 42) • ERIC DAM : "Electronic Conference used in an environmental project for European highschool groups." Denmark
- 43) • OLIVIER VALLEE : "Networking Club". France
- 44) TAKAHASHI EDUARDO TADAO : "The Brazilian Research Network to the introduction of telecommunications in support of formal / informal education at the primary / secondary level." Brazil
- 45) NIKOLAJ BLOM : "The possibilities of using information technology in future education." Denmark
- 46) • PIERRE-JEAN CARDONA : "Un serveur télématique d'école, support d'activités de lecture / écriture." France
- 47) • DAVID GORDON : "The school as a communications center." Israel
- 48) KARL HEINZ SCHMID : "Project relating to the millennium celebrations of Austria. Austrian schools will contact all other European countries and reenact one period of history, where respective countries had any kind of conflict with Austria." Austria
- 49) • CHRISTOPHE PARMENTIER : "MIRIAD : Moyens Informatiques pour une Remise à niveau Individualisée A Distance." France



- 50) • MICHAEL E. PALMQUIST : "Developing an Online writing Center : A Technological Approach to Writing Across the Curriculum." USA
- 51) • VLADIMIR PETROVICH KASHITSIN : "Distance learning in Russian Higher Education by means of advanced Telecommunication and Informatics." Russia
- 52) • WANNA PRUEKPRASERT : "Teaching Chinese as a foreign language." Thailand
- 53) • PATRICK RIDGE : "PILOT : Partners in Learning Over Telecommunication (International Friendship Project)." Germany
- 54) • DINA RAPPEPORT : "Science education by telecomputing." Israel
- 55) • KOVACS GYOZO : "A distance learning system using telecommunication tools, TV, the Radio and the Videotex." Hongrie

The Prizewinners

The Jury placed the winners in three categories :

1. PROJECTS BASED ON INSTITUTIONS

FIRST PRIZE

- W.R. (Bill) Klemm (U.S.A) : THE FORUM: A Unique, State-of-the-Art Computer Conferencing Environment for Small-group Tutoring and Collaborative Learning. (Entry 27)

Commended

- Margaret M. Riel (U.S.A) : Learning Circle Connections across Classrooms: Building a New Foundation for Global Communities. (Entry 22)
- Richard Hotte (Canada) : Computer-based support for students in distance learning. (Entry 23)
- Gwen Gawith (New Zealand) : Information literacy through information technology: teacher development project (NEW ZEALAND). (Entry 36)
- Michael E. Palmquist (U.S.A) : Developing an Online Writing Center : A Technological Approach to Writing Across the Curriculum. (Entry 50)

2. CURRICULUM DEVELOPMENT PROJECTS SUBMITTED BY INDIVIDUALS

FIRST PRIZE

- Jens Peder Weibrecht (Denmark) : Mysteries in NØRRESUNDBY School. (Entry 34)

Specially mentioned by the Jury

- Martin George Rich (United Kingdom) : The Use of Electronic Mail and Conferencing Systems in Teaching Management Students. (Entry 37)

Commended

- Finn Sparsø (Denmark) : The use of telecommunications technologies in education and training. (Entry 8)
- William L. Burrall Jr. (U.S.A.) : Using Telecommunications to Understand Society's Problems: Evaluating Causes and Exploring Solutions. (Entry 10)
- Dina Rappeport (Israel) : Science education by telecomputing. (Entry 54)

3. INDIVIDUAL PROJECTS WITH ORIGINAL IDEAS FOR USING TELEMATICS IN LEARNING

FIRST PRIZE

- Gideon Goldstein (Israel) : Instructional Considerations in Devising a Telecommunication Network for Schools. (Entry 21)

Specially mentioned by the Jury

- Pierre-Jean Cardona (France) : A Telematics Server to Support Reading and Writing in School. (Entry 46)

Commended

- Fiorenza Scotti (Italia) : Hypermedia systems for public health and environmental education. (Entry 31)

Title: **The use of telecommunications technologies in education and training**

Author: Finn Sparsø

Address: Frenderupvej 23, 2830 Virum, DENMARK

Contact: Tél : 45.42.85.82.14 Fax : 45.42.57.21.24
 e-mail : AppleLink DK0018

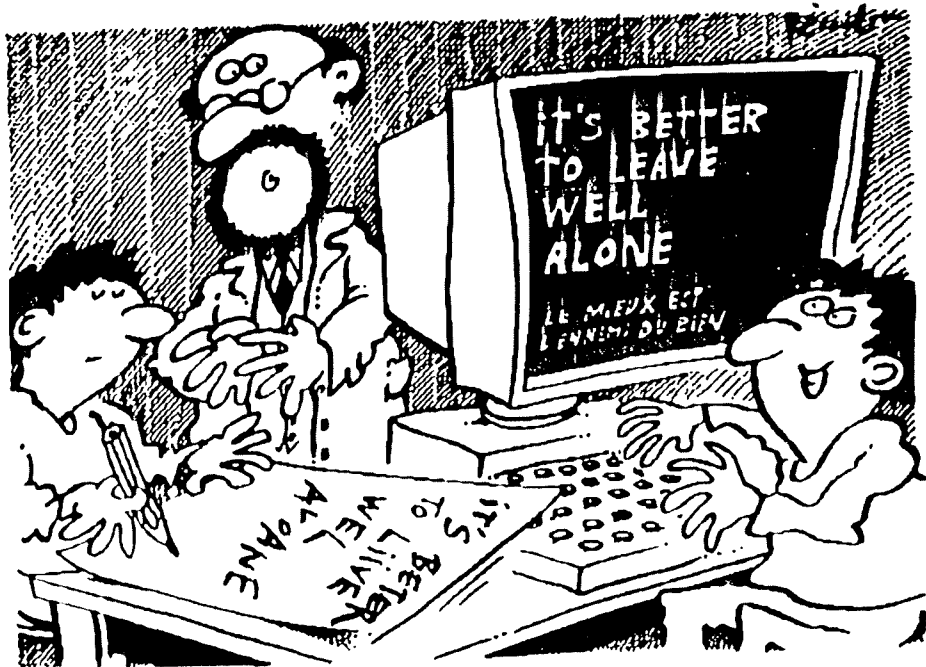
Main aim and field of interest: Secondary schools, learning a foreign language

Keywords: English as a foreign language, e-mail, Apple Global education, communication, networks

Summary of Entry

This text describes three applications of e-mail for the teaching of a second language. The author teaches English in a Danish secondary school and the activities were developed for 16-17 year old students. The school is connected to Apple's Global Education Network, which supplies e-mail and other services for about 200 subscribing schools world-wide.

The first example shows how direct communication with students in other countries can provide an important source of interest and motivation for language students. Next is the description of a project involving about 100 students from 5 schools in Hawaii, Canada, Belgium and Denmark. Groups were organised to discuss subjects of importance to the students but in practice it was impossible to keep the groups together because the students preferred individual contact.



A further project consisted of a single day of e-mail working with a secondary school in England. In spite of administrative difficulties this was a great success and was followed later by a similar day. Students were enthusiastic and very committed during those two days in contrast to their usual attitude in class. Also their e-mail letters were of better quality than their usual work. Another project, linked with the same English school, is being prepared for 1993 when students will compare the employment situations in their two regions.

The author also offers an interesting linguistic analysis of the impact of e-mail on the type of message exchanged by the students.

Comments

This is a well constructed entry in which the author draws on his professional experience. It sheds light on the possibilities of telematics and its limitations within the context of one educational use, namely learning a foreign language.

The paper notes a rapid evolution in the educational approach in the three projects presented, for example the increased collaboration with the correspondent schools in Great Britain. The analysis of language used by students to communicate by e-mail is both original and constructive.



Entry 10

Title: **Using Telecommunications to Understand Society's Problems : Evaluating Causes and Exploring Solutions**

Author: William L. Burrall Jr.

Address: 2108 Marshall Avenue, Wheeling, WV 26003, USA

Contact: Tél : 13.04.242.65.39
e-mail : (AT&T) lmondsvlww001 (PRODIGY)
NCSW77A

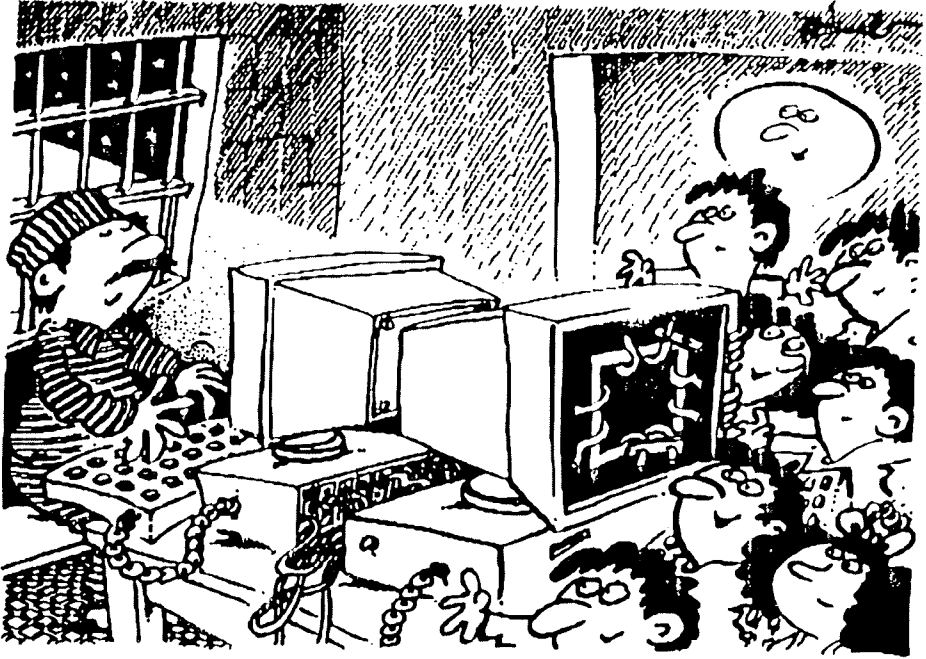
Main aim and field of interest: Secondary schools and prison education

Keywords: electronic mail, social problems, prisons.

Summary of Entry

This project is based on the idea that telematics can reduce the gap of understanding about social problems between peoples from different social groups. In this cause, the promoter asks several secondary school classes connected to the AT&T Learning Network to correspond with an inmate of the high security prison in the state of Virginia, USA. The correspondence is to be carried out on an anonymous basis (for the prisoner) and for a period of about 15 weeks. The correspondence will deal with, on the prisoner's side, the chain of events which led him to find himself in prison, and on the student's side, the circumstances in their lives which might have brought them to commit crimes.

The author has two objectives for this project: first to raise the level of consciousness of students about what could lead each of them one day to be excluded from society; and secondly to allow prisoners in jail to send out a "social message" while preserving their anonymity.



Comments

The strong point of this project depends on the skillful interleaving of three characteristics of telematics which combine to make the application credible and original. The presentation is short but complete and well-drafted.



Entry 10

First the project focuses on a restricted use of telematics between the two communicating partners: a school class chosen for its proximity to a high security prison and the detainees who are normally excluded from any form of expression. Electronic mail ensures anonymity and a powerful authenticity for the contents of messages between individual students who recount episodes which could have led them to commit an indictable offence and detainees who describe the sequences of events which led them to be imprisoned. Contrasting these two viewpoints can lead each party to reconsider their stories and review the social problems which lead to confinement.

Next is the importance of having a reliable and secure network for communication, which in this case is provided by AT&T's "Learning Network Service". The time restricted nature of the project gives the impression that the author sees in telematics more of an educational tool for dealing with a specific class based subject than a means of radically changing the process of schooling.

Finally the theme of the project demonstrates an interesting use of telematics in allowing social subjects to be introduced into school in a vivid and direct way, without the distortion of information which might be introduced by more or less well-intentioned intermediaries. Furthermore it allows the inmates of a prison to communicate without fear of being judged or being tempted to show off in an aggressive manner.

Title: Instructional Considerations in Devising a Telecommunication Network for Schools

Author: Gideon Goldstein

Address: 30 Alexander Yanai St., Haifa 34816, ISRAEL

Contact: Tél : +97.23.52.03.235 Fax : +97.23.52.34.827
e-mail : ortisrael@igc.apc.org

Main aim and field of interest: Supporting students and workers in the O.R.T.* network

Keywords: Telematics, networks, secondary and technical school teaching



*O.R.T. stands for the Organisation for Reconstruction through Training



Summary of Entry

This project consists of communication systems using e-mail, teleconferences, networks and databases which provide opportunities for researchers, teachers and students to add value to their work. As a result, teachers are able to review their methods more thoroughly and adapt them quickly and efficiently.

The author puts forward interesting educational ideas based on the experiments undertaken and draws lessons and suggestions from them. In order to complete his mission which consists of introducing ways of working to allow technical and less academically able students to become proficient, the author demonstrates working methods including the introduction of a telematics system.

Comments

The paper sets out a number of philosophical and educational considerations on the project developed by the author and his team. The network, which extends from the People's republic of China, and Australia, passing through Russia, Spain and to North America and other countries, offers a great diversity of viewpoints for teachers and learners. Furthermore the students have the opportunity to interest themselves as much in studying the cost of living across the world as in wild life in the desert, meteorological measurements or the ozone layer and pollution!

Title: **Learning Circle Connections across Classrooms : Building a New Foundation for Global Communities**

Author: Margaret M. Riel

Address: 943 San Dieguito Drive, Encinitas, CA 92024, USA

Contact: Tél : 16.19.94.31.314
 e-mail : mriel@attmail.com

Main aim and field of interest: Primary schools, learning circles

Keywords: Telematics, cooperative learning, social understanding

Summary of Entry

This project is based on the idea that in the telecommunications era, the school as a community of students is no longer limited by constraints of time or space. Indeed it is now possible to imagine that a class can establish special working relationships with other classes around the world and thus form a stable learning community which the author has called a "Learning Circle".

For the promoters of this project, these circles can encourage the development of social and intellectual understanding through making cultural differences more directly perceptible to students. Such long distance communication can also, according to the author, motivate students to produce written work of precision and quality.

Entry 22

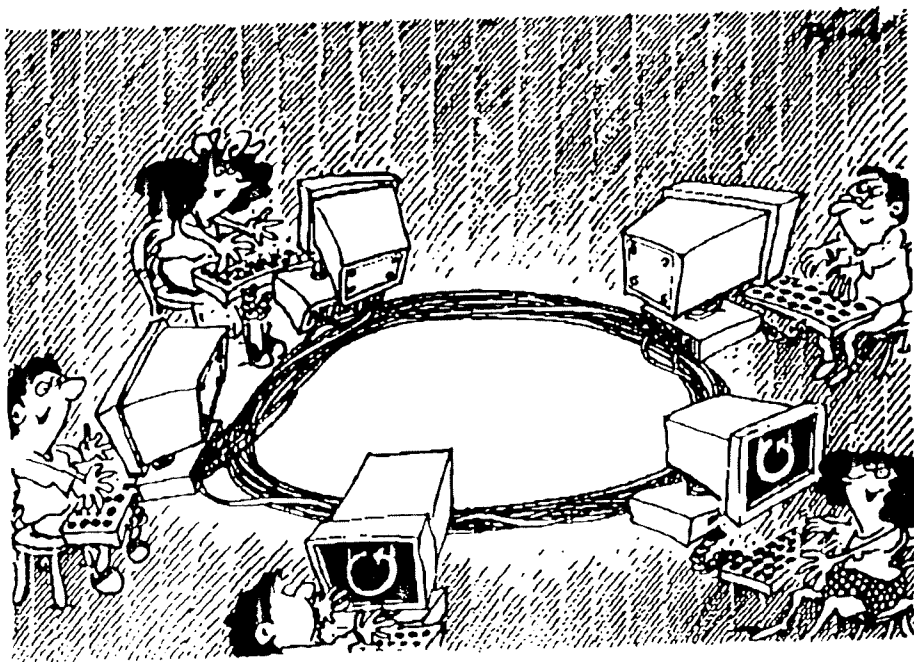


The project emphasises the importance of good organisation for successful exchanges and many original teaching scenarios are proposed. Teachers also benefit through learning new techniques and gaining recognition for their work amongst a world-wide peer group.

The originality of this project arises from the equal weight given to the benefits gained by students in belonging to Learning Circles and by their teachers through personal and professional development.

Comments

What was particularly noticeable about this project was on the one hand the author's enthusiasm and commitment and on the other the depth of thought which she has shown in this telematics venture. The report is illustrated with numerous excerpts of communication between classes participating in the network which can serve as an inspiration for teachers who might be tempted to use their classroom computer to build a new Learning Circle.



Margaret Riel's participation in setting up AT&T's Learning Network in parallel with her involvement in the training of teachers makes this a useful model. The idea of constructing small international communities of school children is original since it combines at the same time a window on the world with its cultural differences and the need for communications which are limited in time. The idea of limiting these exchanges in time provides teachers with a secure framework within which to organise work effectively during a given school period.

The concept of the "Learning Circle" evokes two images: the first concerns the student and suggests the moment in the day when young people are seated in a ring to share information on how their day has gone, on their family, or even on their opinions and problems. This reflects the fact that school is a socially controlled enlargement of the family circle. The second refers to what are called "Quality Circles" in management. This concerns more directly the teachers, and metaphorically designates a group of professionals who elaborate a strategy for jointly planning their work.

This idea of a circle, associated with an exchange of information ties in closely with what is known as "activity learning" which shares ways of thinking or of analysis on any subject; an element in teaching of the utmost importance. Education is conceived not only as a preparation for life but is in itself a way of life. This is exemplified by the project which promotes direct communication to enable students of different cultures to "rub shoulders" with one another. In this way they discover that Christmas in the Southern Hemisphere is celebrated under the summer sun, that the price of bread can vary considerably from one part of the planet to another and that it is not possible to converse directly with little Japanese children in school-time because that is when they are asleep!

Entry 23

Title: **Computer-based support for students in distance learning**

Author: Richard Hotte

Address: 1015 Avenue Murray, Québec G1S 3B7, CANADA

Contact: Tél: (418) 68.16.871

Main aim and field of interest: Support for students preparing for the Montreal Certificate in Computing

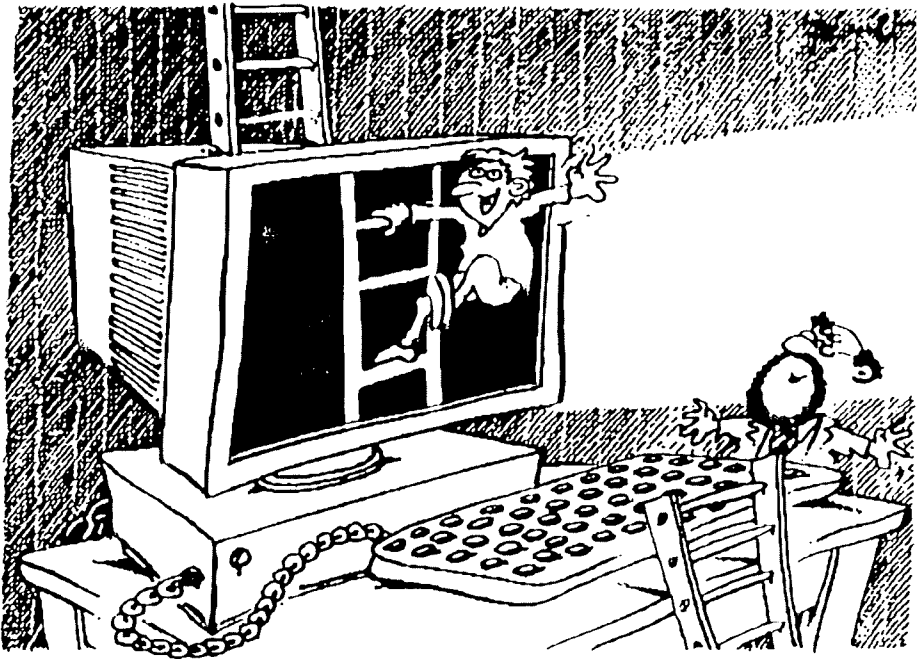
Keywords: Distance learning, student support

Summary of Entry

This project presents a general design for a computer-based student support environment which has been applied in the context of a certificate in computing at the University of Montreal. The model adopted by the author is based on computer mediated communications and tutoring. The goals are to handle the reception and guidance of groups of students, to promote group cohesion and to facilitate contacts between participants (students, teachers and study counsellors). The system design incorporates the main functions of groupware and computer mediated communications. Its main advantage is to allow a precise and rigorous monitoring of individual student progress, as well as a check on the quality of the teaching and counselling they receive.

Comments

This project is different from most of the others submitted to the Competition in that it does not deal directly with either the process of teaching or with communication between students. It has the more modest aim of offering computer science students a supportive framework for their general administrative and educational needs: timetables, registration, lecture announcements, library services, etc. At a first reading, one might not therefore consider the use made here of telematics to be really "educational".



On reflection, however, one is led to the conclusion that this is an interesting and promising contribution because telematics is the combination of telecommunications and computing. The first of these technologies assures the transmission of information while



Entry 23

the second organises and structures information so that knowledge can be acquired. There is every reason to believe, therefore, that the type of computer-based management now common in business will spread to educational institutions. In this sense, the project is significant.

In addition, the project is based on a practical design which fits well into the educational process aimed at integrating students into their community, with study counselling and support playing a central role. The author also believes that the system will encourage the socialization of students and develop the feeling of belonging to a community with a common purpose. Finally there is the incidental benefit that this experience will prepare students for using similar systems in their future workplaces.

Title: **THE FORUM : A Unique, State-of-the-Art Computer Conferencing Environment for Small-group Tutoring and Collaborative Learning**

Author: W.R. (Bill) Klemm

Address: 9001 Grassburr Rd., Bryan TX 77802, USA

Contact: Tél : 140.98.45.42.01 Fax : 140.98.47.89.81
e-mail : wrk2101@tamvenus

Main aim and field of interest: University education, teachers of teachers and administrators

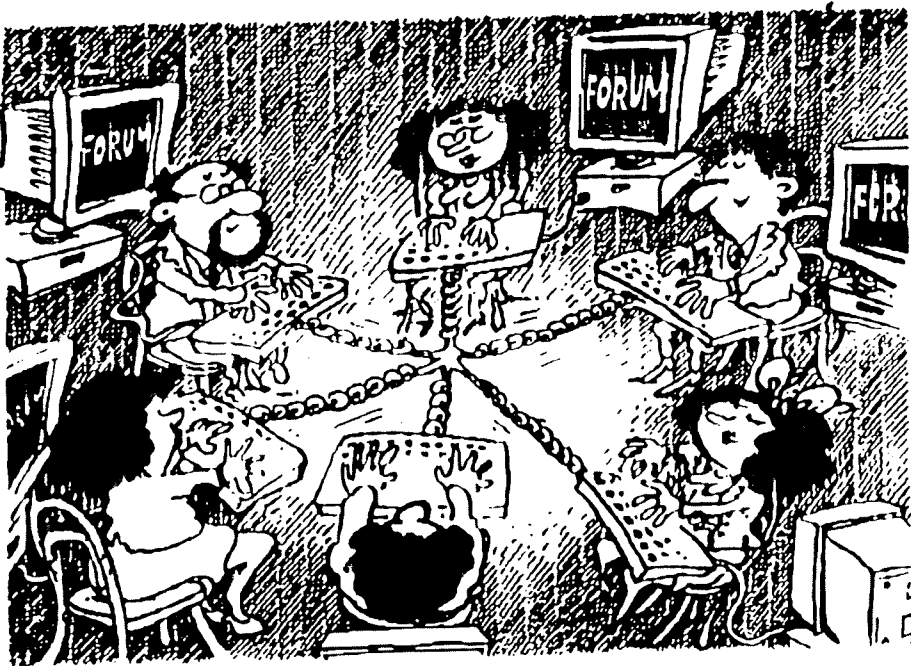
Keywords: Teleconferencing, hypertext, hypermedia, groupware, electronic mail, interaction at a distance

Summary of Entry

The authors teach in the Department of Veterinary Anatomy and Public Health at Texas A&M University and have had extensive experience with new technology in education. Their text describes FORUM, a program running under MS-Windows which provides a complete environment for electronic conferences for small groups, with special attention paid to teaching methods based on tutorials and collaboration.

The program already exists in prototype form and has been tried by users. FORUM offers e-mail and teleconferences in a Hypertext environment (with the possibility of being extended to hypermedia). Each piece of text put into the system automatically becomes a node in its hypertext context, and links with other nodes can be made, either automatically or specifically by the user. This technique allows for the creation, in the form of hypertext structures, of a range of interaction protocols for the participating group.

Entry 27



A very interesting innovation by FORUM is that it gives to the chairman of the conference and the tutor the possibility of specifying these protocols by rules which can then be used by the system to form links automatically.

The program was conceived specifically for the world of education and the authors demonstrate how it could support not only teaching and training, but also administrative and counselling tasks.

Comments

The FORUM project is particularly interesting because it proposes a significant technological innovation which allows the structuring of interactive exchanges at a distance. The main qualities are clearly displayed in an excellent and well-argued entry.

The authors have also foreseen new phases of development which can evolve through the use of hypertext to highlight and to classify information, demonstrating an application for their university campus. The proposals reflect a particular sensitivity to the increasing variety of teaching and training resources available to the tertiary stage of education.

On the one hand, FORUM offers students and lecturers greater freedom as well as a consequence that they can choose where, when and how to study. On the other hand, the system gives lecturers and administrators the tools to follow the learning paths of individual students and to give advice where needed.

Moreover, this entry shows that FORUM has not just been developed to save time or money on behalf of the institution, but with the motive to improve the quality of training and, as a consequence, the student's quality of life.

Entry 31

Title: **Hypermedia systems for public health and environmental education**

Author: Fiorenza Scotti

Address: Via Papaveri 3, 34016 Trieste, ITALIA

Contact: TEL: +39.40.21.32.06

Main aim and field of Interest: Educating the general population about health and environmental matters

Keywords: Young people, health, environment, multimedia kiosks

Summary of Entry

This project deals with health and environmental education for the general public, with special reference to young people. The proposed application would be implemented via interactive multimedia systems placed in booths or kiosks in public places (schools, sports centres, libraries, hospitals, social centres, airports etc.). The goal is to augment the physical and psychological well-being of the population by making individuals responsible for their own physical condition (dietary education, prevention of socially transmitted diseases, protection of the environment etc.).

Comments

The experts appreciated this entry for its theoretical considerations and its practical approach, in particular the interesting development of the distinction between "learning" and "education". The first is defined in cognitive terms, while the second has more to do with attitudes and know-how. In this context, therefore, "education" is not concerned with "instruction" but rather with socially defined models and standards of behaviour.



Entry 34



Title: **Mysteries in NØRRESUNDBY School**

Author: Jens Peder Weibrecht

Address: Kongensgade 22, 9400 Nørresundby, DENMARK

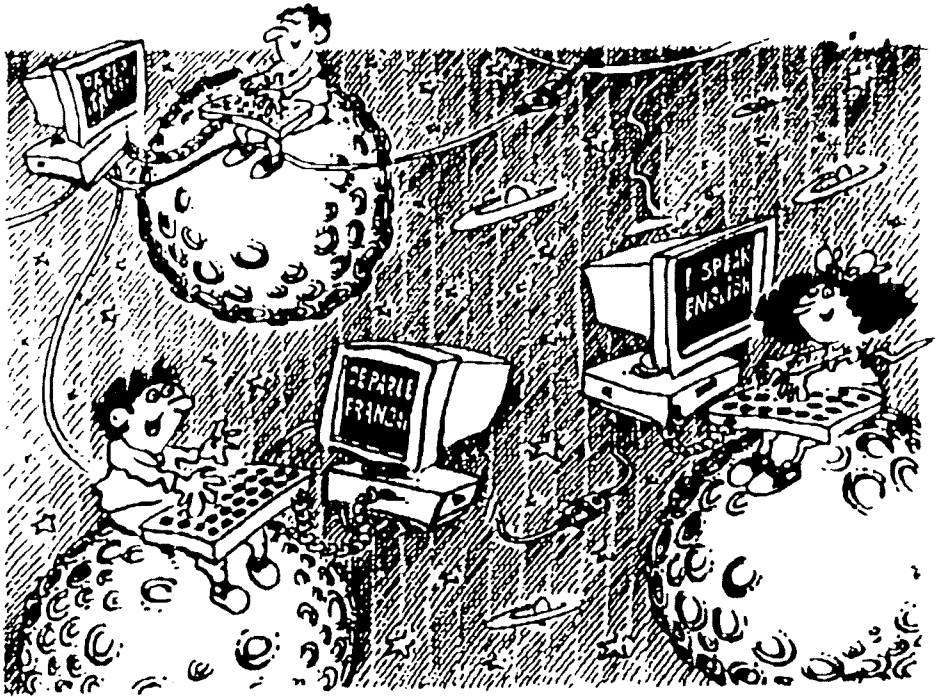
Contact: Tél : +45.98.17.70.98 Fax : +45.98.17.70.98

Main aim and field of interest: Secondary education, study of a foreign language

Keywords: Communication, creativity, telematics, reading, writing, speaking, video

Summary of Entry

Using the SESAME network and the Franco-Dutch telematics project "The Little Mermaid", the author proposes a learning activity for a class of beginners in French as a foreign language. The activity consists of the development of a script for a home video which is constructed page by page and transmitted to classes in other countries for feedback and discussion. The plot is based on the mysterious happenings and murders in the students' own school, which allows them to exchange comparative information with their correspondents in other countries about their schools and way of life. Interest and motivation are maintained by the suspense of the plot.



Comments

This is an excellent activity plan which combines language teaching objectives with the motivation and enthusiasm which high school students find in devising and implementing their own projects.

It is a very good idea for using telematics in communication, involving both a common creative project and the personal information it needs, while providing both the motivation and the commitment needed in learning a foreign language.

Entry 34



The proposed activity combines both telematics and video and is useful for language learning in that reading, writing and speaking are all required. It is also useful for the more general communication skills the students must develop, as well as for their mastery of modern technologies.

It is especially interesting that the project is in a sense "multimedia" and gives us an idea of the possibilities which will be opened up by the fusion of multimedia and telematics, which the author believes will become "the international, inter-cultural and interdisciplinary communications channel between the world's schools".

Title: **Information literacy through information technology : teacher development project (NEW ZEALAND)**

Author: Gwen Gawith

Address: 3/4 Cowie Street, Parnell, Auckland, New Zealand

Contact: Tél : 64.93.08.94.44 Fax : 64.96.38.97.56

Main aim and field of interest: Teacher education for primary and secondary schools

Keywords: Teleconferencing, teacher training, information literacy

Summary of Entry

The author is creator and co-ordinator of a programme in information studies for teachers in New Zealand, which has as its aim the formation of an important group of teachers who have a double skill — in new technologies and in information management — and where each teacher becomes a point of reference for the promotion of information literacy within the school.

The author describes a national programme which aims to promote the effective use of information technologies in all New Zealand schools by the year 2000, thus guaranteeing a basic knowledge of informatics to all primary and secondary school teachers and students.

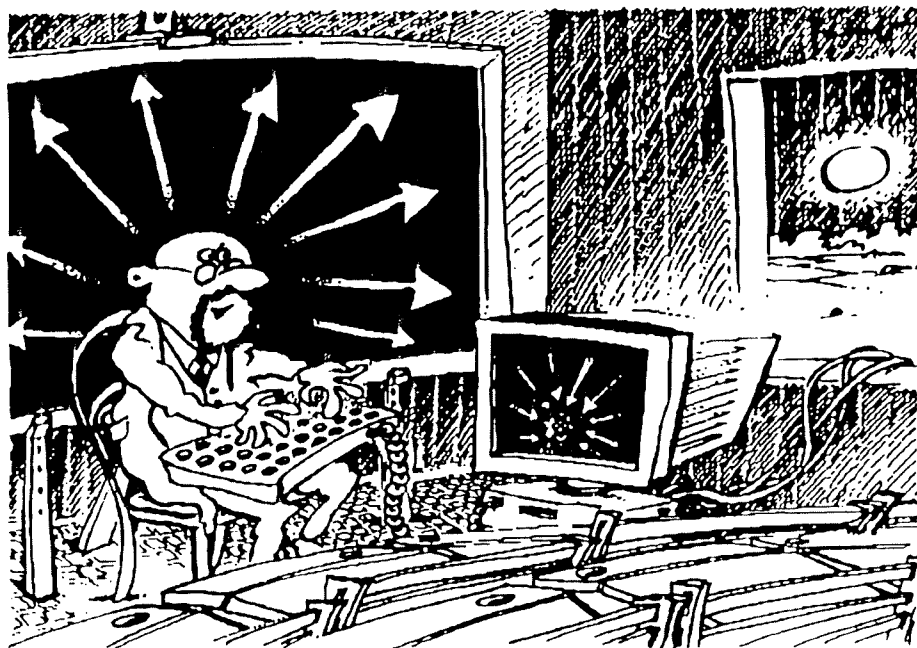
The first phase of the programme began in 1990 when a telelearning course was established for the training and continuous updating of teachers, using telephone conferences to back up tutorials and discussions.

Entry 36



Phase two (1993-94) introduces some 25 classroom-based learning projects in which the teachers from phase one can elect to participate, share experiences through the network and disseminate results to a wider education audience.

A third phase, expected to begin in 1995, aims to extend the programme to the small rural schools which were excluded from the first phase and to introduce videophones and teleconferencing to the phase one sites.



Comments

The author has produced a remarkably well-presented and well-documented essay. Gwen Gawith's personal involvement and her initiatives seem to be determining factors from the very start. Taking into account a long term plan for implementing the idea of I.T. literacy capability for all New Zealand school students, she has developed a practical development strategy.

One of the key elements is that of training specialist teachers who will be charged with introducing new technologies in their schools. This new category of teachers will draw upon a focussed policy and on financial investment at a time when the country's economic situation is difficult. The author has won her case thanks to the pragmatic and practical nature of her proposed programme.

Having sold the idea of specialist teachers she has addressed herself to developing and to putting into place the necessary training — which is based on methods of distance learning. One of the key elements of this operation is based on organising telephone conferences during training sessions. This has also brought about the need for new training methods which have been used as the foundation for introducing a more sophisticated telecommunications project in stage two.



Entry 37

Title: **The Use of Electronic Mail and Conferencing Systems in Teaching Management Students**

Author: Martin George Rich

Address: Flat 4, 35 Gwendolen Avenue, London SW15 6EP
UNITED KINGDOM

Contact: Tél : +44.71.47.78.627 Fax : +44.71.47.78.880
e-mail : sf309@city.ac.uk

Main aim and field of interest: Students and teachers at the City University Business School, London

Keywords: Management studies, electronic mail, teleconferencing and case studies, group work at a distance

Summary of Entry

As information systems become more and more important in the realm of business, teachers must take into account the evolution of new technology and give thought to its use in strengthening ties between the worlds of business and education.

The author of this entry describes the use of computing case studies to teach group work and information technology skills to management students. Through electronic mail, large numbers of students on campus can participate in the case studies on an individual basis without the restrictions imposed by traditional classes for full time students.

The paper describes the difficulties of managing the case studies, especially when equipment failures occur, and provides feedback from students as well as a report on levels of use. Overall the case studies have been a success, motivating students to use electronic mail and to gain rapid results from their efforts.

Through the experience of using electronic means for learning, students are at the same time preparing themselves for the reality of the business world where computers are well-established to aid corporate decision-making.

Comments

What is particularly interesting about this project is the setting up of group work and case studies using telematics systems which reduce the effective distance between partners and offers each student the opportunity to intervene at any time. These activities generate a new group dynamic and a new concept of developing educational material alongside traditional publications.

The paper provides a valuable overview of current literature on the subject of management education and predicts an increasing dependence on information technology in the university of the future.



Entry 46

Title: **A Telematics Server to Support Reading and Writing in School**

Author: Pierre-Jean Cardona

Address: 1, Impasse Henry-Dunant, 89000 Saint-Clément,
France

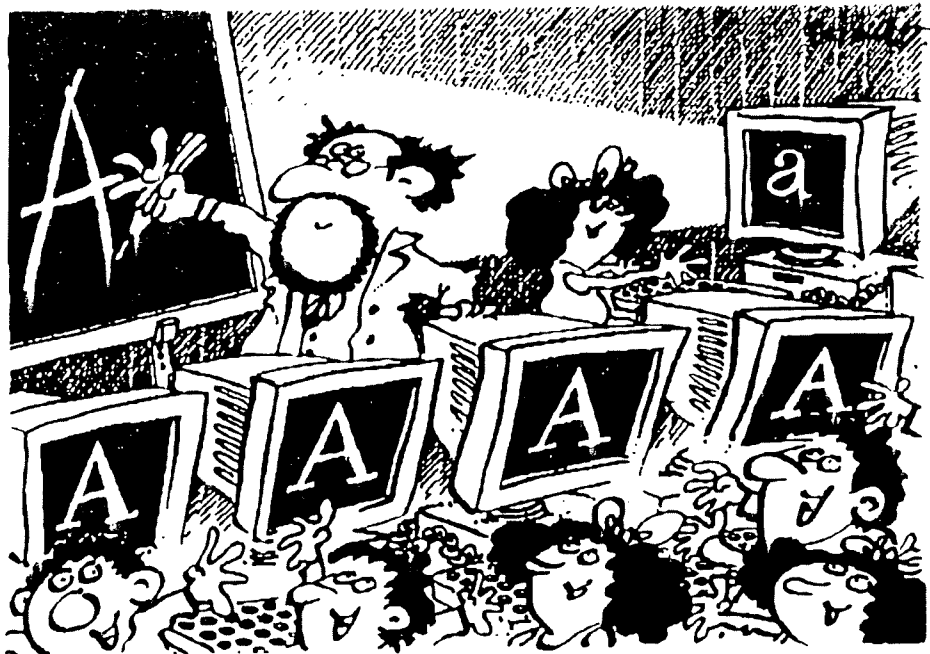
Contact: Tél : 33.86.65.45.59

Main aim and field of interest: Primary school learning for 8 to
11 year olds

Keywords: communication, electronic mail, databases, net-
work, forum, server

Summary of Entry

This essay describes how to integrate telematics into the primary school classroom with possible extensions to the whole school or a group of schools. The central theme is the development of tele-teaching in the context of the author's personal experience with various videotex servers. A specific project is proposed involving the creation of a server for an individual school with children aged between 8 and 11 years. The essay presents first the telematics environment, then the educational approach and concludes with the specific structure of the service and its functions.



Comments

The experts liked this well thought-out essay, in which the motivation and objectives are clearly expressed. The author has devoted considerable effort to the definition of a coherent general framework for the combination of teaching and telematics. He is also aware of the difficulties of implementing such a tool for a variety of actors, not only the teachers and their students, but also outsiders who may add a new dimension to the experience of communication.

The author suggests several very interesting possible pedagogical activities. He is well aware of the different types of communication made possible by the technology and notes that "telematic writing is a stimulus not just for text but also for the development of communication in general".



Title: **Developing an Online Writing Center:
A Technological Approach to Writing
Across the Curriculum**

Author: Michael E. Palmquist

Address: Colorado State University, Department of English,
Fort Collins, Colorado 80523, USA

Contact: Tél : 13.03.49.16.428
e-mail : mpalmquist@vines.colostate.edu

Main aim and field of Interest: post-compulsory education

Keywords: writing skills, "on-line writing centre", editing,
networks

Summary of Entry

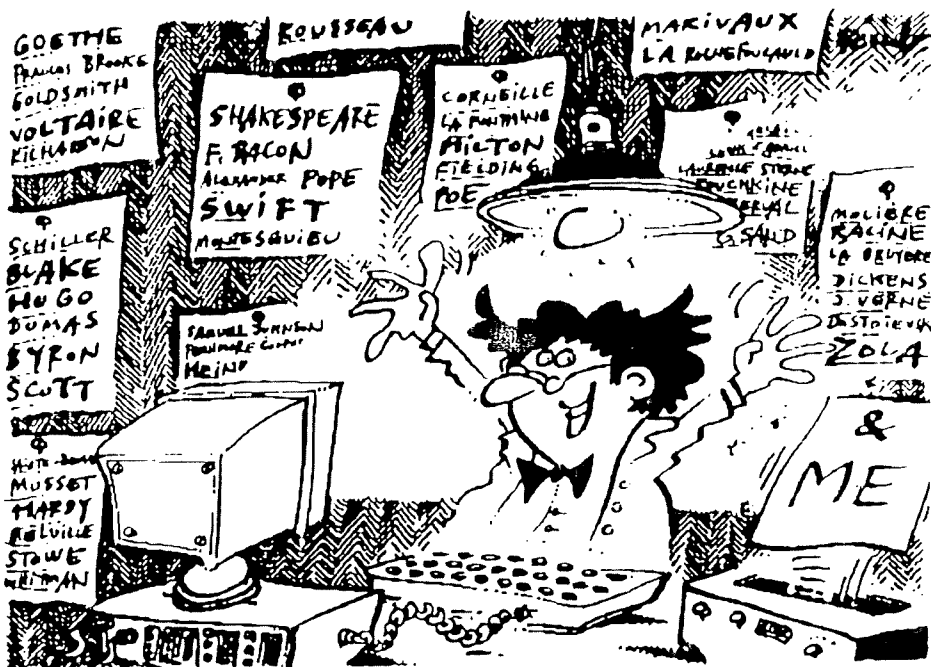
The authors are all members of the English Department of Colorado State University and have significant experience in using computers to teach writing skills to university students.

They propose the creation of an "On-line Writing Centre" which could offer the necessary resources in either general or specific disciplines: on-line two-way tutorials, practical work, essays, standards and reference materials. The Centre would make use of hypertext to build up the body of knowledge, and access to the system would be fully integrated with the University network which provides communications and electronic conferences.

The project is in keeping with the national programme "Writing Across the Curriculum" which seeks to improve the writing of American University Students through bridging the gap between a general education provided by English Departments and the more specific education given (or more often absent) in the student's specialist department.

The authors believe that the process of developing the Centre will bring in its train a debate throughout the University on the role and importance of written work within the disciplines. Then the Centre would itself become a vehicle for keeping up an interest and a truly inter-disciplinary collaboration on the subject of writing.

The important human and technological resources already available in the authors' department would allow for rapid assembly and development of the Centre. Once working, the Centre would serve as a model for similar action to be taken in more than two thousand other "Writing Across the Curriculum" programmes in the USA.



Entry 50

Comments

This extremely well-thought-out and documented project describes an extension of existing campus information processing resources to improve the capacity of students to draft and to process text.

Of particular interest is the availability in the same software package of two complementary approaches to training in writing skills: the "Writing Across the Curriculum" approach which integrates teaching disciplines with a methodology of writing; and the teaching of written expression with the aid of information systems.

The authors have analysed the limitations of these two approaches when they are used in isolation and have concluded that when used together and combined in a single package they are more effective and offer better educational content.

One must also credit this project with providing greater flexibility and individualisation of training methods. Likewise, they have finalised a plan for implementing the service in their own institution which can easily be brought into general use in other contexts.

Title: **Science education by telecomputing**

Author: Dina Rappeport

Address: MIGAL Galilee, Technological Center, South
Industrial Zone, Kiryat Shmona 10200, ISRAEL

Contact: Tél : +97.26.95.35.11 Fax : +97.26.94.49.80

Main aim and field of Interest: Students and teachers of secondary school science

Keywords: ecology, agriculture, biology, networks, electronic mail





Summary of Entry

The project "North Star" starts in Galilee from Kiryat Shona and radiates to 18 secondary schools throughout Israel. Communications are provided by a Novell network which allows consultation and the up-dating of data bases. All participants in the project are also linked by electronic mail.

Results of experiments carried out in each location are immediately available to other network schools as are simulations performed in liaison with a scientific research centre. Ecological ideas are dealt with both theoretically and practically through the project which also provides facilities for organising seminars in biology and agriculture. A body of teaching material is in constant evolution based on the experimental work and practical research of the project partners.

The project allows for rapid and continuous change in the data associated with the teaching of Biology as well as access to long-term observations necessary for the teaching of Ecology. The authors are, for example, in contact with ecologists at Haifa University who have allowed access to data on the renewal of the Carmel mountain forest which was destroyed by fire in 1989.

Comments

What particularly engaged one's attention in this project was the use of telematics for an ecology project which involved students and teachers in secondary schools directly in the field in liaison with a research centre and the University.

A significant outcome has been an increase in the degree of understanding between partners since the introduction of these new methods of working. It is intended to extend the programme soon to other branches of natural science or ethnology, with an expansion of the use of multi-media.

Conclusion

Independently of the fact that the prizewinners earned themselves round-the-world air trips, and without wishing to go over the honours list in detail, it remains for the editor to highlight the great diversity and excellent quality of the proposed projects. In brief, and in no particular order, the following list will help to illustrate the extent of the ideas and experiments stimulated by the competition:

- learning how to edit text with on-line documentation and interactive exercises;
- using telematics to facilitate communication and "rapport" between people;
- encouraging students to participate in group open learning,
- crossing curriculum boundaries, motivating and stimulating learners through interaction between students in several countries;
- studying social problems in dialogues between school students and prisoners;
- in-service teacher training and development of teaching methods on a national scale;
- making a reality of the "global village" through educational activities between several schools in several different countries;
- open-learning for science teachers in rural areas in developing countries;
- access to new technologies and their educational applications in rural districts of developed countries;
- promoting an understanding of the political, economic, philosophical and social impact of the new technologies on a national basis, thus preparing young people for the world of work;
- teaching and learning of a second language;
- professional training using all facets of telematics;
- educational activities involving co-operation between classes;
- raising the profile of ecology as an important subject for study;
- embedding a national project into the normal curriculum;

- raising public awareness of health and environmental issues;
- exploring the benefits of using different forms of telematics for teacher training;
- specific educational ideas for structuring group work within distance learning.

It is too early to be certain about the long-term impact of telematics on education and training and whether we have a technology looking for a use or a valuable learning tool. What is not in doubt is the energy, realism and dedication of the many workers throughout the world who are experimenting with these new technologies to the benefit of their own students and the generations to come. The Competition has played an important part in stimulating these ventures. Only time will tell whether the undoubted enthusiasm of the pioneers becomes standard practice in the future.

Report prepared by:

translation and editing: David Tinsley, Philip Swann,
Claudine Charlier, Raymond Morel

layout: Georges-Alain Dupanloup

cover: Siska Audeoud

illustrations: Pécub

