THE HOSPITALITAS PROJECT IN THE CONTEXT OF CONTINUING MEDICAL EDUCATION IN SWITZERLAND

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ABSTRACT

In the field of continuing education in Switzerland, there is a general trend towards the promotion and the diffusion of new technologies: for instance, the Swiss Medical Association is heavily promoting eLearning by strongly recommending to use and to accredit online courses. The paper presents the Swiss national healthcare system and the Hospitalitas project, which is led in collaboration by the NewMinE Lab of the University of Lugano and the I.Re.F. in Milan. The purpose of the project is to develop an online platform for the continuing education towards healthcare assistance to patients immigrated from developing countries.

INTRODUCTION

Switzerland does not have a unique national healthcare system, it is rather constituted by 26 “minisystems”, corresponding to the 26 cantons (the states which make up the Swiss Confederation). Nonetheless it is not difficult to identify in the field of continuing education a general trend towards the promotion and the diffusion of new technologies: for instance, the FMH (the Swiss Medical Association) is heavily promoting eLearning, by strongly recommending to use and to accredit online courses; the SSO (the Swiss Dentist Association) created an eLearning platform for the continuing education of dentists; the Swiss Confederation itself launched in 1999 the Swiss Virtual Campus (SVC) programme, which aims at promoting ICTs in higher education: more than 20% of the projects which have been activated within the SVC are placed in the healthcare field. The University of Lugano and the I.Re.F in Milan, took the initiative to develop Hospitalitas, an online platform for the continuing education of healthcare professionals who treat immigrated patients coming from developing countries. The physicians and the medical staff working in the border areas of Ticino and Lombardy will be able to participate in this course as a part of their continuing education.

NEW ICTS IN THE SWISS HEALTHCARE SYSTEM

Switzerland is a Federal State organized into three different institutional levels: the Confederation, the cantons and the municipalities. Each one of them has precise functions and competencies: “the Confederation mainly cares about the national defence, social foresight, streets, agricultural policies, public transportations and foreign affairs. The cantons mainly care about higher education and healthcare. The municipalities must guarantee K12 education, assistance to old people and free time structures” (Crivelli & Filippini, 2003).

This means that social and healthcare activities in Switzerland are organized by the cantons and the municipalities. The Confederation does not have an important role in financing healthcare: “the cantons finance the main part of public expenses in health. From a juridical point of view, they have the power to legislate in the healthcare settings, except for a small amount of topics which must be controlled by the Confederation. Cantonal health laws and policies which regulate the application of Federal political rights in healthcare settings have been created in almost all the cantons. The Swiss Constitution writes that each canton can independently decide how to supply healthcare services, the competencies that need to be given to the municipalities and how to provide the education of the operators” (Crivelli & Filippini, 2003).
Therefore Switzerland does not have a unique national healthcare system, it is rather constituted by 26 “minisystems”, corresponding to the 26 cantons (the states which make up the Swiss Confederation). However, there are medical associations which operate at a national level. The most important one is the Swiss Medical Association (FMH – Foederatio Medicorum Helveticorum), a private association that represents physicians in national matters. Over 90% of the active Swiss physicians are members of the FMH, which takes care of their education: “One of the main tasks of the Swiss Medical Association is the regulation and the control of the physicians’ specialisation periods after the Federal exam. In most cases, this education permits to obtain the title of FMH specialist. The FMH puts more and more importance on quality guarantee, in this sector the association mainly collaborates with the Specialist Medical Societies and partners” (FMH 2004).

The Regulation for the Continuing Education (RAC) of the FMH says: “For each physician continuing education is a moral and legal obligation” (FMH RAC 2002). Among the means one can use to remain up to date, the FMH advertises after general or specialists meetings and clinical updating “the new media, particularly electronic and audio-video learning and teaching tools (like CD-ROMs, DVDs, the internet, learning soft wares, etc.)” (FMH RAC 2002). The elaboration, the implementation, the application and the evaluation of educational programs fall within the competence of the single Specialist Medical Societies (SMS) (FMH 2004). The FMH only indicates the unit which measures the educational activities, that is “the updating credit which most of times is equivalent to one hour of training” (FMH RAC 2002).

Distance education and particularly eLearning is seen as an efficient solution to a rather typical problem for physicians who work in inaccessible places. As a matter of fact they can collect the necessary credits to maintain the FMH certification without having to leave their job. (Hänggeli 2003).

The FMH strongly advises to use and accredit online continuing education courses with self-assessment tools. Some courses have been developed by the FMH itself in collaboration with the Landesärztekammer Hessen (the medical chamber of the region Hessen, in Germany) and the pnn ag, a spin-off of the ETH (Polytechnic School) in Zurich.

At the moment on the portal of pnn ag (http://pnn.ethz.ch) two courses are available: “Diabetes Mellitus Typ 1” and “Cardiology Update 2003”. Both are problem-based learning courses: they show several cases using decision trees and contain a theoretical part (documents, slides, and audio files), a quiz for the self-assessment and a questionnaire to evaluate the course. Until now the courses were successful, the physicians who frequented them gave a positive evaluation to the layout, to the comprehensibility of the texts and to the navigation (Otto, pnn ag).

Also in the dental field there is an active association at a Federal level, the Swiss Society of Odontology and Stomatology (SSO). The SSO offers an eLearning platform for the continuing education on the portal www.dental-education.ch.

In the commission in charge of education, the SSO set up a sub commission called “Fernfortbildung” (continuing distance education – Sub F) which has the following tasks: 1) to collect and examine the educational contents of the different circles of dental medicine in order to transfer the best ones to CD-ROMs, videos and websites; 2) to maintain an offer of educational programs in different languages for people active in the dental circle; 3) to guarantee the quality and the execution of the distance courses for the SSO; 4) to create a system in order to assign the correct number of credits to the hours dedicated to continuing education (Ramseier 2001).

One of the problems of distance courses is quality: it is not easy to evaluate the quality of a course and distinguish among well done courses and mediocre ones. The SSO created a rating system: all the users who participated in courses can report them and evaluate them by compiling an online questionnaire. This allows creating a list of the most appreciated courses (Ramseier 2002).

About the number of credits that have to be assigned for each eLearning course, at the moment there is no general standard guide. The Sub F is trying to create an accreditation system; about this matter, Cantoni & Piccini (2001) suggest to create a database that will contain all the courses frequented by the SSO members to guarantee that for the same eLearning activity each participant will get the same amount of credits.
The Swiss Virtual Campus (SVC)

The Swiss Confederation launched in 1999 the Swiss Virtual Campus (SVC) program (www.swissvirtualcampus.ch). Its purpose is to promote new information and communication technologies in higher education (universities, universities of applied science and research institutes). Even though no continuing education activities are now available, it is an initiative that will have an important impact in this sector, producing a cultural change in the distributing institutions – universities that traditionally are among the main operators also in continuing education – and in the students who will access in the future to continuing education and who must get used since the university to become eLearners. Among the fifty financed projects, eleven are in the medical field. Here are three examples:

• **AD Learn – A comprehensive course on Alzheimer’s disease and related disorders.** Presented by the University of Zurich (Project Leader), in collaboration with the Universities of Basle and Lausanne, and Boomerang Pharmaceutical Communications, Mulhouse, France.

• **eBioMed.** Problem-oriented learning for students of natural sciences. Presented by the University of Lausanne (Project Leader), in collaboration with the Universities of Zurich and Fribourg.

• **VSL – Virtual Skills-Lab.** Virtual preparation of medical students for their first contact with patients. Presented by the University of Lausanne (Project Leader), in collaboration with the Universities of Berne, Geneva and Zurich.

In July 2004, twenty eight new projects that will start in fall 2004 have been officially accepted by the Swiss Virtual Campus, eight of them are in the medical field:

• **Psychopathology Taught Online (PTO).** Presented by the University of Zurich, in collaboration with the Universities of Basel, Bern and Fribourg.

• **Physica pro medicis - Interactive Course On The Physics Of The Human Body.** Presented by the University of Basel, in collaboration with the Universities of Bern, Zurich, Neuchâtel, Fribourg, Geneva and the Federal Polytechnic School of Lausanne.

• **eFeed.** Presented by the University of Zurich, in collaboration with the Universities of Bern, the Polytechnic School of Zurich (ETHZ) and the BFH (University of Applied Science of Bern).

• **E-GONE - Gynaecology, Obstetrics, Neonatology, Endocrinology.** Presented by the University of Zurich, in collaboration with the Universities of Bern, Basel and Lausanne.

• **CRANIONLINE - Cranio-Maxillo-Facial Surgery.** Presented by the University of Basel, in collaboration with the Universities of Bern, Zurich and Geneva.

• **Epidemiology, Internet course for Swiss Medical Students and for Public Health Training.** Presented by the University of Basel, in collaboration with the Universities of Lausanne, Zurich and Geneva.

• **E-MHEM E-course in Management for Masters in Health Economics and Management.** Presented by the University of Lugano, in collaboration with the Universities of Lausanne, the ZFH (University of Applied Science of Zurich) and the SUPSI (University of Applied Science of the Italian speaking Switzerland).

• **Gerontology: Psychiatric symptoms in older patients.** Presented by the University of Zurich, in collaboration with the Universities of Bern and Geneva.

THE HOSPITALITAS PROJECT

In the context of eLearning and continuing medical education, the NewMinE Lab (New Media in Education Laboratory) of the School of Communication Sciences of the University of Lugano, and I.Re.F. (Istituto Regionale Lombardo di Formazione per l'Amministrazione Pubblica) decided to create an online platform for the continuing
education of healthcare professionals operating in Ticino (Southern Switzerland) and in the border area of Lombardy (provinces of Varese and Como, Italy) (see Figure 1); the platform wants to assist medical staff in the treatment of immigrant patients coming from non-western cultures (Cantoni, Tardini, Bachmann 2003).

This project has been called Hospitalitas (Healthcare Online Shared Platform for Increasing Ticino And Lombardy Immigrant Treatment and Assistance - www.hospitalitas.net). It has been funded by the Interreg Program IIIA, a program which aims at improving the collaboration in the border areas of different countries. For this reason, the Hospitalitas project has two leading partners, an Italian (I.Re.F) and a Swiss (NewMinE Lab) one. Other partners are from the Italian side the hospitals of Como (Azienda Ospedaliera S. Anna) and Varese (A.O. Macchi) and from the Swiss side the Scuola Superiore per le Formazioni Sanitarie (SSFS) and the Centro Documentazione e Ricerca dell’Organizzazione Sociopsichiatrica Cantonale. Hospitalitas started in January 2003, and will end in December 2005.

**Hospitalitas’ mission and vision**

The different cultures and religions can often be difficult to understand and often lead to misunderstandings because of diverse point of views about matters like: health, illness, death. The Hospitalitas project aims at teaching medical staff about the different non-European cultures and values, and at making them aware that this knowledge helps to treat foreign people in a more appropriate and respectful way. Thus, the project wants first of all to increase the awareness of the importance of intercultural communication in healthcare settings; secondly, it wants to promote suitable knowledge and competences among healthcare professionals in order to foster intercultural communication; it wants to apply appropriate eLearning activities for these purposes; finally it wants to create a community of practice in the Insubric region (see Figure 1).

Due to their high economic and industrial development, Lombardy and Ticino are high migration flow areas with people coming from developing countries such as African, Asian or East European countries. As an example, in Ticino 25% of the resident population is foreign. The greatest number of immigrants – Italy excluded – comes from the area of the ex-Yugoslavian countries, with about 13’000 immigrants in Ticino (about 4.3% of the whole population).
Italy – Population of Como and Varese – 2001

<table>
<thead>
<tr>
<th>Foreigners coming from developing countries and Eastern Europe</th>
<th>38'000</th>
<th>2.81%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1’349’977</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 1: In the year 2001, out of a population of 1’349’977 people in the provinces of Como and Varese, about 38’000 (2.81%) were foreigners.

Switzerland - Population living in Ticino in 2000

<table>
<thead>
<tr>
<th>Non-EU Foreigners</th>
<th>21’398</th>
<th>6.97%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>306’846</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 2: In the year 2000, out of a population of 306’846 people in Ticino, 21’398 (6.97%) were non-EU foreigners.

Italy - Immigrated patients in the hospitals of the provinces of Como and Varese - 2002 - Italy

<table>
<thead>
<tr>
<th>Foreign patients coming from developing countries who needed hospitalization</th>
<th>3’424</th>
<th>3.1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total of patients who needed hospitalization</td>
<td>109’509</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 3: In the year 2002, out of 109’509 patients who needed hospitalization, 3’424 (3.1%) were coming from developing countries.

Switzerland - Patients hospitalized in EOC and CPC – 2000

<table>
<thead>
<tr>
<th>Non-EU Foreigners</th>
<th>307</th>
<th>0.83%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>37’205</td>
<td>100%</td>
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Table 4: In the year 2000, out of 37’205 patients hospitalized in the hospitals belonging to the EOC (Ente Ospedaliero Cantonale) and the CPC (Clinica Psichiatrica Cantonale), 307 (0.83%) were non-EU foreigners. Furthermore, in the year 2001 1’939 foreigners used the frontier healthcare service.

The regions of Lombardy and Ticino encounter several problems due to these migration flows. One main concern is how to give healthcare assistance to these patients. They come from countries which have remarkably different cultural, economic, political and healthcare standards, and when they need health assistance the healthcare operators are often not experienced enough to take care of them in a proper way.

The support of a learning environment is needed in order to train health professionals to handle critical or daily situations with people from different cultures. Hotalitas offers a complete overview of statistical data about foreign patients in the hospitals of the Insubric region, about epidemiological aspects, and about the normative situation of immigration in Italy and in Switzerland; it presents a theoretical part about intercultural communication and healthcare; and finally it includes a section where some fictitious situations are presented.

A description of the courses and the modules

Two types of courses and several databases will be created in order to build the online learning platform; the courses will be periodically delivered to different categories of healthcare operators, while the databases will always be available online. Communication tools will play an important role for the project, they will be available in order to allow the participants to share their knowledge, ideas and problems.

The two types of courses that will be produced are: an introduction course, which is addressed to all healthcare operators, and in-depth courses, which are addressed to specific categories of healthcare operators, such as nurses, midwives, etc. The introduction course has the function of making the healthcare operators aware of the
importance of intercultural communication by outlining the issue in its different facets. The in-depth courses will be customized on the specific needs of the categories.

The content of the introduction course has been structured into three modules:

1. The first module deals with demographic and normative issues: it presents the demographic situation of the interested area (Ticino and the provinces of Como and Varese), analyzing the data concerning the attendance of foreign people in the area; it presents and analyzes the data about the hospitalizations of the foreigners in the area; finally, it presents the provisions that rule immigration both in Ticino and in Lombardy (and Italy) and the healthcare attendance to immigrants.

2. The second module deals with the issue of intercultural communication in its different facets, namely the linguistic, psychological, anthropological, cultural and religious ones. This module focuses on the cultural differences in healthcare, as for instance the different representation in the different cultures of concepts such as health and illness, diet and nutrition, and similar; how the rites of passage (death, birth, and so on) are represented; and so on.

3. The third module contains some cases that represent fictitious situations of interactions between an Italian speaking doctor/nurse and an immigrant patient; the interaction will then be analyzed in its different facets – biometrical and epidemiological, communicative and linguistic, and so on – in a context of problem-based learning. The fictitious situations will be created on the basis of several interviews with physicians where they were asked to talk about their personal experiences with people of different cultures.

The three modules have different educational approaches: the first one presents statistical data, the second one contains information about theoretical concepts in the field of communication, cultural and anthropological studies, and the third one presents practical situations which have the aim to create problem-based learning activities.

Hospitalitas has been conceived as a blended learning course where in presence meetings and online activities alternate. Two in-presence meetings are foreseen, one at the beginning and one at the end of the course. The online activities include the personal studying of the delivered content as well as online interactions, such as asynchronous discussions with experts or with colleagues.

Work progress

Several teams have been created in order to distribute the work. A technological team made a research in order to choose the most appropriate platform for the course. Learning Management System (IBM) fulfilled all the requirements needed to produce the project and was finally chosen among four other platforms (see Figure 2). The same team took care of the layout and the graphics.
Another team took care of the contents and started collecting data about the attendance of immigrants in the hospitals of Como, Varese and in Ticino, in order to create the content for the modules. The collected data have been elaborated and a final structure for the course modules has been created.

Several interviews have been made to local healthcare experts who lived experiences with foreign and immigrant patients. This precious information will be used as the basis for creating the content of the third module.

In order to be able to assign credits to the Italian healthcare professionals who will attend the course, a proposal has been done to the national program of Continuing Medical Education (E.C.M) from the Italian Ministry of Health, the program that decides how many points (or credits) can be assigned to a continuing medical education course.

Up to now the general structure of the introduction course has been outlined and its first module has been developed (see Figure 3). A test phase on the first module has been conducted in April 2004 with 19 users (11 from Italy, 8 from Switzerland); in the end of May 2004 the course has been evaluated and refined. The participants have been asked to complete a questionnaire. This collected data will help us to continue the elaboration of the course and to improve it. At the moment (July 2004) the results of this test phase are available. They are reported in the following paragraphs.

Figure 2: a screenshot of the LMS platform
The first module of the Hospitalitas course (Immigration in the Insubric region: data and normative aspects) has been tested in order to be improved and to make all the modifications needed for the start of the regular course in the beginning of 2005. The results obtained by this test phase will allow correcting and developing the course.

The outcomes of the test phase are positive the participants were satisfied by the educational experience and the subject of the course.

The execution of the test phase

The test phase started in April 2004 and ended in June 2004, it involved nineteen voluntary healthcare operators. Sixteen (ten Italians and six Swiss), finished the course and handed in the questionnaire. They were employed in the hospitals of Como (Sant’Anna), Varese (Fondazione Macchi) and Mendrisio (Cantonal Psychiatric Hospital). They had over a month to complete the course. Participants were physicians, nurses, psychologists and a social worker.

The test phase has been conducted in a blended modality. The Hospitalitas team organized the first meeting in presence on the 22nd of April 2004 at the Insubria University in Varese (Villa Toeplitz). The keynote has been made by Professor Mauro Buscaglia, director of the Unit of Obstetrics and Gynaecology at the Hospital Carlo Borromeo in Milan and director of the health and supports centre for immigrated women. He opened the debate about healthcare assistance to patients immigrated from developing countries. After the introduction, the Hospitalitas staff presented the use of the platform and the course module.
During the face-to-face meeting, the participants were given logins and passwords to access the platform. Apart from reading the online course contents, they had the possibility to take part in a forum and discuss about their personal experiences with immigrated patients. The forum was supposed to collect problems and uncertainties about the technology, the methodology and the contents, which would be later added into the FAQ section of the course.

The module remained online for forty days, during which a phone help desk was available to help the participants solving technological problems found in the platform and in the forum. In several cases it was necessary to meet the person in order to fix problems on place.

The test phase ended with three focus groups organized in the hospitals mentioned above.

The results

Fourteen out of sixteen participants took part in their first online educational experience: all of them pointed out as the main educational advantages the possibility to explore resources online and the flexibility of the course, underlining the advantage of having more time to assimilate the contents.

Some disadvantages revealed were the troubles in communicating with the colleagues, the problems to organize the time to dedicate to the course, the technical difficulties and the low motivation to deal with online education.

The average amount of points the participants gave to the quality of the contents was 4 (out of 5 points). Most of them appreciated the clearness, the structure and the relevance of the texts. Many found the topic interesting, mainly because of a deep interest in the problem. On the other hand, some found the contents not detailed enough. The Hospitalitas staff did not explain clearly enough that the introductory module used for the test phase was meant to awaken participants about the topic. The contents could not be detailed because they were addressed to different types of professions. Generally the physicians found the contents easy and already acquainted, while the social worker found the medical terms too difficult and needed help from her colleagues to be able to fully understand the contents.

In order to allow the participants to read the contents offline or away from the computer, each didactical unit could be saved and printed as a PDF file. The fact that only three students did not print the files shows the main preference of reading from a printed document. One person added that it was not possible to either make notes nor to underline the concepts on a screen; an interesting feature to add to the platform, would be a “notebook” utility were one can write his/her notes or copy and paste a text and print them later. A research will be made to check if and how it is possible to add such a tool.

The execution of the course had an average duration of seven hours and thirty minutes (the time estimated by the staff was eight hours). The participants had access to the course from their jobs or from their homes at any hour of the day with a small preference for the evening from those who could not easily access from the hospital (four out of sixteen).

About the technical instruments, a large number of users (ten out of sixteen) met problems mainly as they tried to connect to the platform from their home. The main difficulties were the low speed of the web pages, problems with the attachments that sometimes could not be downloaded or opened, and problems with viewing the contents from home. The format used to develop the materials (SCORM) needs the installation of the Java Virtual Machine, a plug-in for browsers that is not necessarily installed on older machines.

The graphical interface and the usability of the module were appreciated; the participants gave 3.7 points out of 5 to the appearance. Some users defined the graphics “simple and clear”, others “ordinary”. The navigation appeared “intuitive” for thirteen users, while three heavily criticized the icons of the LMS platform, saying that they were unreadable (see Figure 2).
The most frequently used communication tool during the test phase has been the phone because it was easier to be used for the participants could receive synchronous answers by using a technology they already were familiar with. Some emails have been sent mainly from the staff to the students who were, however, not used to employ this technology to communicate, so the reading of electronic mails has been neglected. The discussion forum has practically never been used. The users did not find it motivating enough to write anything. The Hospitalitas staff decided to involve in the future physicians with experience in the relationship with immigrant patients, as moderators in the discussion forum.

CONCLUSIONS

Distance education, and eLearning in particular, plays an important role in the context of Swiss healthcare continuing education. As it has been showed, Swiss medical associations strongly encourage the use and accreditation of eLearning courses, because of their great flexibility. Furthermore, eLearning in healthcare contexts fosters the integration of education activities into the broader field of eHealthcare.

In this context, the Hospitalitas project, promoted in collaboration between the University of Lugano (Switzerland) and the I.Re.F. in Milan (Italy), aims at helping Swiss and Italian healthcare professionals to treat patients coming from different countries, by providing them with communicative, psychological, demographic and normative competences and skills.

The results of the test phase conducted on the first module of the introduction course gave good results, showing that participants appreciated, in spite of some technical problems, the richness of learning contents and the novelty of the online learning experience, which most of them were not used to.

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Swiss Virtual Campus, the direct link to the website: [http://www.swissvirtualcampus.ch](http://www.swissvirtualcampus.ch)


Swiss Virtual Campus, list of new medical projects. (Available online, [http://www.swissvirtualcampus.ch/docs/consolidation_progr/consol1_new_projects.pdf](http://www.swissvirtualcampus.ch/docs/consolidation_progr/consol1_new_projects.pdf)).

All the above links have been checked in July 2004.

ACKNOWLEDGEMENTS

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BIOGRAPHIES

Lara Bachmann graduated in Communication Sciences at the University of Lugano in April 2002. She is a scientific researcher at the NewMinE Lab, a laboratory focused on education and technology at the University of Lugano, where she works on several projects. The main one she is working on is Hospitalitas. She started collaborating at this project in January 2003 as a researcher.

Elisabetta Cigognini graduated in Communication Sciences at the Iulm University of Milan in the June 2003. At the moment she is attending an “eLearning project manager” master at the University of Florence. She works as a collaborator at the I.Re.F. (Regional Institute for Training of Public Administration Lombardy Italy) in Milan as a content manager on eLearning courses. The first internal developed course is Hospitalitas.

Stefano Tardini got his PhD in Language sciences at the Catholic University of Milan, with a thesis on the linguistic and semiotic aspects of virtual communities. He is currently engaged as a project manager in Hospitalitas. His main research interests are at the meeting points between ITs and the humanities, ranging from Computer-Mediated Communication and virtual communities to eLearning in the healthcare sector to cultural semiotics, argumentation theory and linguistics.

Lorenzo Cantoni graduated in Philosophy and holds a PhD in Education and Linguistics. He is professor of New Media in Education at the University of Lugano, School of Communication Sciences, where he is also the vice-director of the Institute of Communication and Education. He is the director of the laboratories webatelier.net: production and promotion over the Internet, NewMinE Lab: New Media in Education Lab, and is the executive director of TEC-Lab: Technology Enhanced Communication Lab.