

# MONOGRAPH

## WKTO MOBILE COLLABORATIVE LEARNING

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WHAT WILL SCHOOL BE LIKE IN 2010 ?  
COLLABORATIVE LEARNING IN A NETWORK IS ONE POSSIBILITY

### Lycée l'Oiselet in Bourgoin-Jallieu Académie de Grenoble - Savoie technologie ESPACES NUMERIQUES DE TRAVAIL



Multilingual Learner award winner Stockholm - Nets d'Or @ l'Ecole award winner Paris

**ABSTRACT** : What will school be like in 2010 ? Collaborative learning in a network is one possibility. Our team of teachers are exploring the use of computer-aided education for the school of tomorrow. We are working in three directions : first of all e-learning, a form of mobile-learning which provides a permanent personal tutor for students following a given course ; secondly monitoring students' progress on course-work done at home ; and thirdly bringing together students from a dozen different countries to work together on topics using the communication platform of the electronic schoolbag and video conferencing. The spirit of the internet inspires these activities : students are encouraged to be outward-looking, to share their digital culture and to imagine their digital future.

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## **INTRODUCTION.**

We work in a school which has always been outward-looking and we have been used to organizing activities with other schools.

In May 2002, we heard about new software called Electronic Schoolbag, which was being developed by the University of Savoie in France. We made an appointment to meet the designers of this software.

The first meeting took place on Friday June 28th, 2002 at Le Bourget du Lac. Christian Martel, Alain Giannini, Steve Giraud and Eric Brun gave us a demonstration of their communication platform which was designed for teaching purposes and offered to let us test it.

The first tests which took place during the weekend of the 29th – 30th June 2002 were most encouraging. We immediately contacted our partner schools to suggest that we work together on what we could call an "international electronic schoolbag". The Japanese, who have different vacation times from us, and who start their school year in April, did some trials with both text and photos ; these turned out to be totally satisfactory.

What we call an electronic schoolbag is a communication platform installed on a server and designed to support all the school activities. With an electronic schoolbag, you can make students who live in different countries work together and access shared resources. The electronic schoolbag software and our data can be accessed from everywhere the Internet is available : cyber-cafes, computers at school, from home computers of some of our pupils and from teachers' home computers. The students do not have laptop computers.

We immediately started to contact hundreds of schools worldwide in order to propose working together during the 2002-2003 school year. Then we went on holiday.

Starting on August 14th 2002 we produced a work program for students that we posted on an internet site in order to be able to present it to teachers from other countries.

In many countries the school year starts at the beginning of August. We started getting the first replies from Germany, Mexico and Italy. We were able to commence our activities in September 2002 with 16 virtual classes composed of a total of 200 students. Our Japanese partner asked us to complete this written activity with oral communication via video-conferencing. Parallel to this we have set up a system to be able to monitor our students' work in different ways using the electronic schoolbag ; and we have continued our mobile-learning activities.

During the autumn of 2002, we went on contacting schools worldwide, which allowed us to launch 4 other programs in December. Thus we have gone from 16 virtual classes with 200 students in September 2002 to 54 virtual classes with a total of 520 students in December 2002.

The program works with a large number of partners. We wish to help students to progress by putting them in a realistic multidisciplinary situation, close to the one that they will find in commercial firms. The program allows people from different countries, geographically far apart, to get to know one another better, to learn to understand one another, to respect one another and to exchange their views on cultural and economic subjects.

To lead or to follow ? Our students are progressively mastering Information and Communication Technology. Are schools going to lag behind and wait until students demand teaching methods that incorporate this new technology, or are they going to lead the way ? What about those students who have no access to I.T. outside the classroom ? What will schools be like in 2010 ? Bricks and mortar or an internet site ? Or a combination of the two ? Such are the questions that are behind our project.

First of all we shall present our starting-point : a description of the school where the project is based and the aims of the project.

In the second part we shall discuss the different actions undertaken since the start of the project WKTO. We shall speak about the use of electronic learning as a personal tutor for students present on the course ; about the online monitoring of students' projects ; and about our international project using, in tandem, videoconferencing for oral exchanges and the electronic schoolbag for written work.

Then we shall try to assess the results for both students and teachers.

We shall mention the spirit of the internet, the change in students' attitude to the use of foreign languages, the frequent use of communication technologies in teaching activities and its compatibility with sustainable development.

Finally this will lead us to consider the prospects for the future : what further adaptations can we expect ? What is the place of this project in the school of 2010 ?

## **1. BIRTH OF A PROJECT.**

### **1.1. STARTING POINT.**

The Lycée l'Oiselet is a state secondary school catering for 15 to 20 year-olds. The school has both day pupils and boarders. It is situated in Bourgoin-Jallieu which is in South-East France between Grenoble and Lyon, not far from Saint-Exupéry international Airport. Although it is a small town (23,000 inhabitants), its top-class rugby club has made the town famous throughout France and beyond.

Opened in 1963, the school employs 166 teachers today, and has a roll of 1642 students. For the use of pupils there are a total of 265 computers in three distinct networks with internet access.

The school prepares students for the French baccalaureate in both general and technical subjects. There are further education courses in 3 sectors : Industrial Maintenance, Accountancy, Sales and Marketing.

### **1.2. IDEAS AT THE ORIGIN OF THE PROJECT.**

We want the students to acquire the skills and abilities that will allow them to obtain a position in accordance with their wishes. We train them to develop initiative-taking, communicative skills, and the ability to work in and manage a team.

We want to put them in a situation where they can use I.C.T. to communicate in different foreign languages with students from other countries.

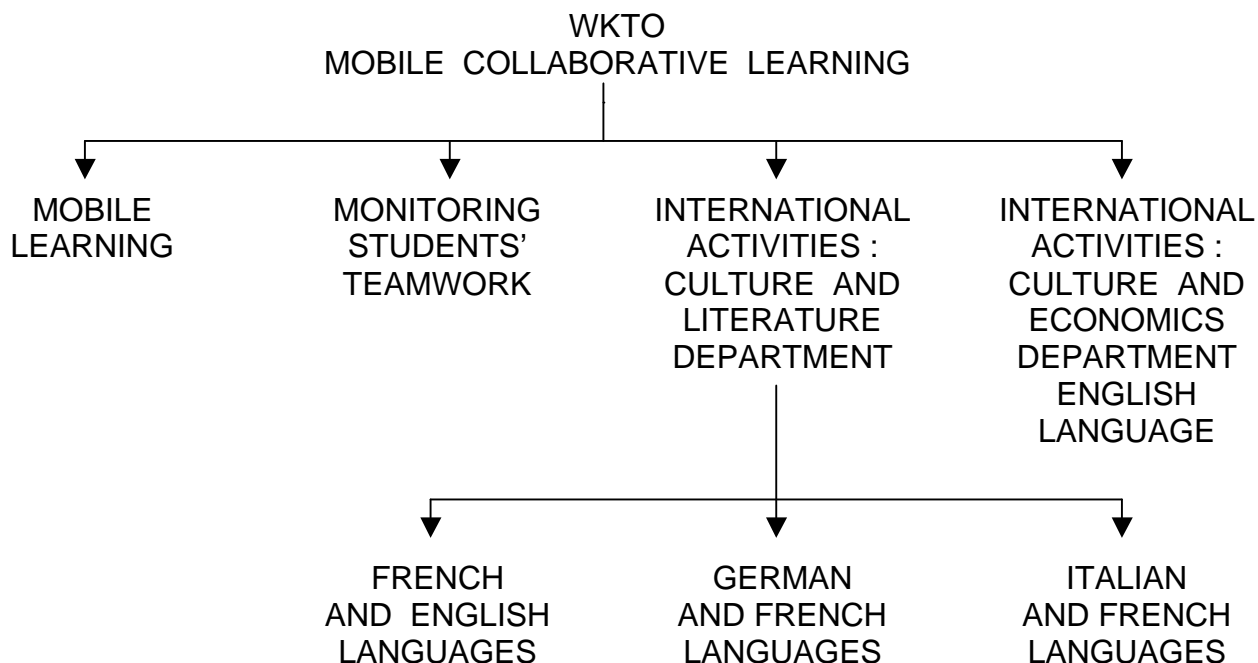
We hope to have a positive influence on students' behavior in various ways :

- making them realize the importance of their personal responsibility,
- encouraging respect for others through the discovery of different cultures,
- making them aware of the link between economic growth and the sustainable development of the planet.

We aim to make these students participate actively in their own training process and to make them ready to take on new types of jobs that have not yet been invented. In this constantly changing world it is important for them to learn how to find information, to learn how to discover things, and in fact to learn how to learn.

## **2. SETTING UP THE PROJECT.**

If we change the way we organize our work and propose a new frame-work with computers as well as pen and paper, we can logically expect to see a change in the way school and the learning process are considered and a new view of geographical and temporal limits.



### **2.1. MOBILE-LEARNING.**

Mobile-learning is expected by mobile students.

Mobile-learning allows students to follow courses outside school hours and outside school. It is particularly useful for certain specific categories of students : those who are in hospital for long periods, or who are handicapped ; for athletes on intensive training schedules; and also as a personal tutor for students who are actually enrolled on the regular courses.

Distance learning, which for long relied on hard copy and postal services, has now changed to mobile-learning with the advent of high speed internet connections. It is now possible to create a site which provides both courses online with accompanying texts, illustrations, sound track, and also a communication platform for work to be submitted and returned.

The situation today is rather special : new technologies are developing rapidly and in unpredictable ways ; team-work organized in networks is on the increase. Our students expect us to prepare them for this new professional environment.

For the teacher a project to produce an online course starts with the production of lessons accompanied by exercises, tests and course-work. The teacher must either be the author of the online material or he must negotiate with the author the right to publish it.

Then he must select the appropriate software, some of which is free. We use Frontpage for the site, Hot Potatoes and Quizfaber for the exercises (the teacher can create all sorts of exercises

such as cloze, multiple choice, matching, even cross-words, and can incorporate texts, illustrations, audio and video clips) and the communication platform of the electronic schoolbag.

We prefer to use a communication platform because electronic mail systems transmit a lot of viruses, not all of which are detected by the present anti-virus protection system.

In the case of the WKTO project mobile-learning is used to teach our international partners, both teachers and students, how to use the electronic schoolbag.

We are also developing an online course in marketing for our students. The course consists of a series of modules with the aim of accompanying the student step by step and helping him to acquire efficient methods. The modules are organized round a text accompanied by illustrations, graphs and audio explanations. This is followed by a series of exercises to test the student's grasp of the material. Longer course work, such as essays, is recorded in the electronic schoolbag.

Our students use the online system as a tutor to complement the course. More research is needed to improve the formula. Some of our students have used the system but its use can not yet be generalized because of insufficient internet access. Some students are in the habit of printing out the different screens (which is an aberration) because the ergonomics of their current computer monitors is not satisfactory.

If our students want to get on in their professional career, it is advisable that they learn how to use these teach-yourself and test-yourself systems.

This mobile-learning site started going online in January 2000.

When we visit mobile-learning sites on the internet we can note that students who are enrolled in "normal" classes, as, for example, at Joseph Fourier University in Grenoble, obtain access codes. "These online courses, designed for mobile-learning by teachers at the University Technological Institute, are also destined to help students in traditional classes on site to increase their knowledge and complete their training." (J.F. University, 2002)

Producing an online course involves a huge amount of time and effort, and so, to be worthwhile, the course must be able to be used in different ways :

- as a mobile-learning course first and foremost,
- but also as a permanent personal tutor for students following the on site course,
- to illustrate lectures, with the aid of a video-projector,
- as a refresher course to allow former students to update their knowledge.

These mobile-learning courses are likely to be useful to our students for continuing education throughout their working life.

## **2.2. MONITORING TEAM-WORK TO ACCOMPANY LONG-TERM ASSIGNMENTS.**

### **2.2.1. HOW IT WORKS.**

In an ever more complex environment it is difficult to find solutions by oneself. School should teach students how to work together in a team to carry out a project. Very often one student is

good at management, another has a good writing style, a third one has a good grasp of I.C.T. The teacher must help them to organize themselves as a team.

Every year teachers give students some long-term assignments in order to train them to manage a project as a team. The project must be planned step by step ; it requires documentary research, and it results in the constitution of a file complete with a Powerpoint presentation on a CD-Rom.

There are several ways of constituting groups : 1 student per computer, 2 students per computer. We have chosen an intermediate solution : each group of three or four students has two computers to work on. It is often difficult to follow the progress of students' work, and yet it is important to be able to set a team back on the right road quickly. It is also difficult to be sure that all the students in a given group do their fair share of the work. In the past, in some cases, the work was left to the last minute and then done in haste by one or two members of the team.

The use of a communication platform, together with guidance on working methods based on forward planning and the necessary participation of all members, allows students to work on their assignment efficiently, and moreover, their progress can be constantly monitored by the teacher in charge. In addition they learn to use all the technological tools available today, such as digital camera and scanner.

The system is all the more interesting as it can be accessed from school, but also from home or from any computer that has an internet connection. Being thus freed from the limits of time and space means that the class can function in a different way and the teacher's interventions are all the more effective for being addressed directly at the persons concerned.

We use the collaborative area of the electronic schoolbag to communicate and to record work done as part of the English, marketing and management courses.

### **2.2.2. PROBLEMS IN CORRECTING WORK SUBMITTED ONLINE.**

Our only difficulty consisted in finding a way of annotating and correcting WITHOUT PRINTING OUT the student's work. This is a complex activity which usually involves using different colours of ink and the whole surface of the page. This is not possible within the framework of the electronic schoolbag. So the solution adopted at present is for the teacher to use triple brackets to indicate (((everything written by the teacher))). We think that in the future we shall use multiple screens along with a tablet PC.

## **2.3. INTERNATIONAL COLLABORATIVE WORK.**

### **2.3.1. PRESENTING THE ACTIVITY.**

The aim is to enable students to become more involved in their own training process through international collaborative work. Probably for the first time these students have found themselves in a real-life situation where they are actually using the target language to communicate : if the sentences they write are not comprehensible they cannot communicate. They can count only on their own resources to find a way of expressing their thoughts. Consequently, for them, speaking a foreign language is no longer strange and exotic but a normal everyday activity. They don't feel at a disadvantage speaking a foreign language because it is a foreign language for everyone.



They read lots of foreign languages and have the desire to understand what they read so that they can effectively communicate.

This project works in the following way :

Each of our participating classes is divided into groups of 3 or 4 students. These groups are called Virtual Class 01, Virtual Class 02 ... Virtual Class 54. To each Virtual Class is added a group of Japanese students, a group of Brazilian students, a group of Finnish students etc. At the time of writing we have 54 Virtual Classes involving 523 students and 22 teachers from 10 countries.

This program consists of 6 steps :

- Teachers and students familiarize themselves with the platform. They read the users' manual in English and start using the training page to practise their skills.
- Forming international groups of students.
- Each student introduces himself in a few lines (name, age, boy / girl, education, hobbies...)
- Each group records the summary of a research subject in accordance with the project they are in : culture and economics or culture and literature.
- The students read all the work submitted, compare and comment.
- Say good-bye at the end of the session.

Throughout the year there is a communication page at their disposal for them to ask and answer questions concerning the project, and also on more general topics.

There are other objectives which make this project truly multidisciplinary. The students learn to organize themselves in a network, to develop skills in document researching ; they will discover companies and jobs in connection with the sales and marketing course, and they will learn how to collaborate on a web site, in connection with the I.T. course. The teachers involved (English, German, Italian, marketing, accounting ...) collaborate closely, sometimes taking the class together, and are sometimes interchangeable.

The internet dimension of the project opens our students' eyes to situations, activities, organizations which do not always exist in their own country. They can compare their own experience of companies with that of their foreign partners. It thus widens their horizons and gives them a first taste of benchmarking. Benchmark testing will be important for them in their future careers. It consists in comparing activities, companies and methods worldwide in order to take advantage of the best ideas.

For these same reasons we invite our students to discover new techniques such as video-conferencing at the initiative of our Japanese partner (Shiba Commercial High School in Tokyo), or international chat at the request of our Spanish and German partners. These activities make students aware of time differences and the need to fix precise appointments in local time with the help of the World Time Indicator on the site.

Coupling the electronic schoolbag with videoconferencing seems to be an efficient way of teaching students to cooperate. We use low-cost equipment so that no partners need be excluded for financial reasons. Our first video-conference linked 5 Japanese students to 4 French students in Virtual Class 03. It started at 4.30pm Tokyo time (8.30am French time) and lasted one hour and twenty minutes. The students were extremely satisfied with the outcome : they discovered that they were able to communicate adequately in English. It was difficult for us to end the session, and all the other students immediately requested the organization of video-conferences for their Virtual Classes.

We use the electronic schoolbag because the virtual classes are composed of students from different countries. If we consider virtual class 07, we find 3 German, 3 American, 4 French, 2 Spanish, 4 Japanese and 2 Brazilian students. These 18 people regularly meet each other in a virtual environment from any computer with an internet connection and do a number of assignments together. The advantage of the electronic schoolbag that we use is that, on the one hand, the risk of transmitting a virus from one computer to another is negligible compared with e-mail exchanges ; on the other hand the collaborative project enables students to communicate and work together on the same page.

Videoconferencing is the natural complement of the electronic schoolbag. It's the ideal tool for going from written to oral work. Videoconferencing allows students to exchange their ideas on subjects prepared in written form, to match faces and names, to get to know each other better, to appreciate each other, and thus to make decisions more easily.

### **2.3.2. THE LOGIC BEHIND EACH PROJECT.**

The WKTO mobile collaborative learning program is composed of 5 different projects, each one of which has its own logic :

The AAA project (culture and economics) is for students ages 17 to 20. They are students whose native language is not English and who use English to communicate and work together. The sessions are organized by English teachers in the course of their normal lessons.

The BBB and CCC projects (culture and literature) are aimed at students aged 15 to 18. The students whose native language is not French write in French. The students whose native language is French write in English. The language teachers are satisfied with this arrangement as their students write in the target language.

The DDD project (culture and literature) is aimed at students aged 15 to 18. The students whose native language is German write in French. The students whose native language is French write in German. The language teachers are satisfied with this arrangement as their students write in the target language.

The EEE project (culture and literature) is aimed at students aged 15 to 18. The students whose native language is Italian write in French. The students whose native language is French write in Italian. The language teachers are satisfied with this arrangement as their students write in the target language.

The DDD and the EEE projects are used by 2 twinned classes ; the extension to other countries is being studied.

For the 2002-2003 session we have 24 participating classes :

**CULTURE AND ECONOMICS DEPARTMENT (USING ENGLISH) :**

- 1 class from GP 305 in Rio de Janeiro, Brazil,
- 1 class from Gymnasium Thusneldastrasse in Cologne, Germany,
- 1 class from Heinrich Von Gagern Gymnasium in Franckfort, Germany,
- 1 class from Instituto de Educación Secundaria Santa-Maria d'Eivissa in Ibiza, Spain,
- 1 class from Instituto Thomas Jefferson in Mexico, Mexico,
- 1 class from Ipsia Galileo Ferraris in Iglesias, Italy,
- 1 class from Kemijärven Ammattiopisto in Kemijärven, Finland,
- 2 classes from Lycée l'Oiselet in Bourgoin-Jallieu, France,
- 2 classes from Shiba Commercial High School in Tokyo, Japan,
- 1 class from Sinagua High School in Flagstaff-Grand-Canyon Az, USA.

**CULTURE AND LITERATURE DEPARTMENT (USING FRENCH AND ENGLISH) :**

- 1 class from Fria Gymnasieskolan in Haninge-Stockholm, Sweden,
- 1 class from Hedbergiska Skolan in Sundsvall, Sweden,
- 2 classes from Interlochen Center for the Arts in Interlochen Mi, USA,
- 2 classes from Lycée l'Oiselet in Bourgoin-Jallieu, France,
- 2 classes from Menntaskólinn við Hamrahlíð in Reykjavík, Iceland.

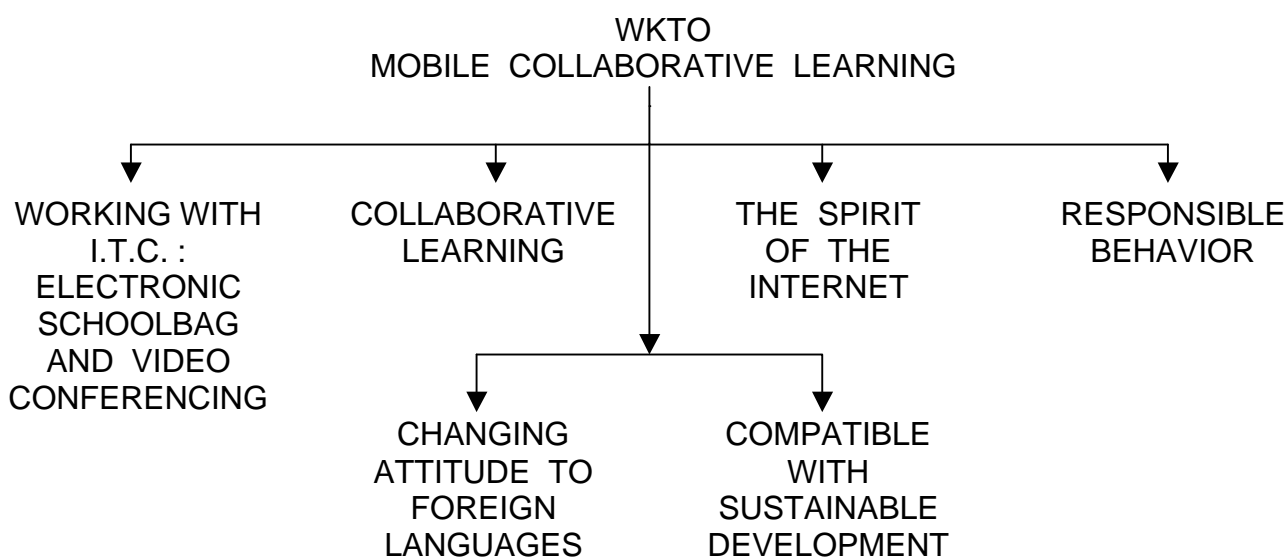
**CULTURE AND LITERATURE DEPARTMENT (USING GERMAN AND FRENCH) :**

- 1 class from Gymnasium Wolfen Stadt in Wolfen-Leipzig, Germany,
- 1 class from Lycée l'Oiselet in Bourgoin-Jallieu, France.

**CULTURE AND LITERATURE DEPARTMENT (USING ITALIAN AND FRENCH) :**

- 1 class from Istituto di Istruzione Superiore Corridoni-Campana in Osimo-Ancona, Italy,
- 1 class from Lycée l'Oiselet in Bourgoin-Jallieu, France.

**3. APPRAISAL.**



### **3.1. THE SPIRIT OF THE INTERNET.**

The development of the internet for civilian use was fired by a desire to discover, to correspond and exchange information with people at a distance. It allows students from different countries to get to know one another better and to share and exchange ideas. This remains our priority, the electronic schoolbag is above all a tool which enables students to break out of their real class.

### **3.2. CHANGING ATTITUDE TO FOREIGN LANGUAGES.**

The use of the foreign languages is no longer the total artifice that it is in the traditional classroom. It is no longer a goal in itself but a means to achieve something else. It is the essential tool that will allow these students to communicate with their peers. It is very stimulating for them to be able to obtain information from them, for they feel so close to them in many ways, they share many preoccupations and tastes, they are interested in the same things, and yet they are sometimes so far apart geographically and culturally. Curiosity is a strong stimulus. Furthermore, expressing themselves in a foreign language has become almost natural. Thus this project prepares them to use foreign languages in the course of their professional activities.

### **3.3. AN INTRODUCTION TO THE ECONOMIC NOTION OF BENCHMARKING.**

In the cultural and economics department, the students discover companies, organizations and professions described by their international partners. This activity resembles benchmarking in economics : it encourages students to be outward-looking and to discover new realities, new ideas.

### **3.4. LEARNING TO WORK WITH I.C.T.**

These group activities on a shared platform can't be suddenly improvised. We are exploring different methods and trying out various solutions proposed by both students and teachers to work efficiently in the collaborative part of the electronic schoolbag and the communication through the video conference.

### **3.5. RESPONSIBLE BEHAVIOR.**

By working jointly with other students, particularly with those who live in countries with widely differing cultures, participating students learn the need for tolerance and mutual respect.

On a communication platform there are rules to be observed. It is important to be extremely careful so as not to damage someone else's work. It is also important not to give in to the temptation to turn everything into a joke.

The teachers have only come across two examples of what could be considered malicious intent. Considering the number of students involved it remains peripheral.

### **3.6. AN ACTIVITY WHICH IS COMPATIBLE WITH SUSTAINABLE DEVELOPMENT.**

According to the European Commission, the aim of sustainable development is to guarantee continuing economic and social development while respecting the environment, and without compromising the natural resources that are necessary for human activity.

We organize frequent international exchanges which allow students to communicate and produce joint documents without traveling a mile, thus protecting the environment. Video-conferencing also excludes the need for traveling.

Communication platforms such as the electronic schoolbag or Quickplace and video conferencing provide an excellent way to work together on the same file while thousands of miles apart.

In our first attempt at international collaboration we used e-mail messages which we printed out to keep ; but now we use NO PAPER at all in our exchanges using the electronic schoolbag.

### **3.7. TAKING INTO ACCOUNT MATERIAL LIMITATIONS.**

New developments in mobile-learning and communication platforms such as the electronic schoolbag represent a challenge for the teams involved in so far as they must take into account the capacity of the computers used by the students, and the transfer speed of internet connections. It implies constant re-creating and upgrading according to the time needed to access picture and sound. The aim is to get the best possible scenario that has immediate access.

### **3.8. ASSESSMENT.**

#### **3.8.1. THE STUDENTS' POINTS OF VIEW.**

Here is a selection of opinions given by students:

*"This activity has taught me how to work in a group on the internet. I have improved my command of written English. I have discovered new cultures, and I have noted that when WE were on holiday, other students, in the USA, Brazil or Japan sometimes were not." - " electronic schoolbag activities show us the importance of communication for the future, and also that to be understood by others it is necessary to speak English. So I have tried hard to improve my English in order to make myself understood." - "These systems teach me how to use the internet." - "I would like to hold a video-conference with the other members of my Virtual Class." - "The electronic schoolbag lets me communicate with foreigners in another language and learn about different civilizations." - "IESB enables us to learn to use other languages and to work in a team. The electronic schoolbag allows me to organize the work to be done and to share out the different tasks within the group." - "It allows me to speak to foreign students, which would not have been possible in another school." - "The electronic schoolbag lets me store my work." - "This system allows me to do things that people have never done before, and these exercises are useful." - "The electronic schoolbag lets me record and organize the preliminary research, then collect information, and each member of the group has access to the data." - "Video-conferencing lets me speak in English to the Japanese students in my Virtual Class thanks to a computer and an internet connection." - "We have learnt how to use a communication platform*

*which is similar to the systems used in the companies we are likely to work for next year. That will be a bonus for my C.V." - "The electronic schoolbag teaches me how to get organized and to develop good working habits for next year."*

### **3.8.2. THE TEACHERS' POINTS OF VIEW.**

We have observed our students and noted their ability to communicate in foreign languages with their international virtual class-mates. They have progressed in this field, they have become more confident and have learnt to share their skills through the joint work projects. They have become used to searching for information on the web, and have learnt how to manage their activities with the use of a six-monthly planner.

This online program allows those who are willing to make the effort to progress, and the most able students to move ahead at their own pace, unhampered by the others. As for those who are in the habit of copying their work from friends the problem is not really solved : they tend to be dead weights in the teams. Internet access both from school and home, though on the increase, is still inadequate, which limits the impact of the project. The link between these I.T. activities and success in the final exam is hard to assess as there is no specific test in the exam.

Companies, such as banks, are starting to offer our students jobs in which they make use of their internet and multimedia skills. We are told that new jobs related to the growth of the internet are being created.

## **4. PROSPECTS.**

### **4.1. TO LEAD OR TO FOLLOW ?**

In France a new certificate was awarded this year for the first time to 15 year-olds who had completed a course on Information Technology and the Internet. This new generation of I.T.-aware youngsters will reach our classes in 3 years time. We must be ready for them.

Some mobile-learning modules can be incorporated into the curriculum.

Companies see that these systems are less expensive than a traditional training course for their employees. We are preparing our students to use these learning tools which they will need throughout their working life.

We have decided to continue our efforts. In 2003-2004 we hope to set up the second generation of online working systems with a new articulation to organize students' work.

### **4.2. WHAT ABOUT STUDENTS WHO HAVE NO I.T. ACCESS OUTSIDE SCHOOL ?**

First of all we run an introductory / refresher course during the first two weeks of the session ; this covers the main software they will use and an introduction to the use of the internet as a source of information and a messenger service.

Throughout the year the students have one hour a week in groups of 15 devoted to I.C.T. and there is a limited self-service system.

### **4.3. SCHOOL IN 2010 ?**

What will it be like ? bricks and mortar ? An internet site ? Or a combination of the two ?

There is no doubt that the school building, which is a place for students and teachers to meet and mix, will remain at the center of activities.

Class-rooms will change as more and more of them are equipped with an electromagnetic white board used in conjunction with a video projector and a computer connected to the internet.

The concept of the school library is bound to change too. When we observe our partners in Sinagua High School in Flagstaff, Arizona, we note that the librarian is a full member of the WKTO team and supervises the students in their WKTO activities using the electronic schoolbag.

The most important point in the coming changes concerns the availability of information thanks to the electronic schoolbag which is NOT a laptop computer but a means of accessing, via the internet, a server where everything concerning the project is stored.

Teaching a collaborative working technique in a virtual world, and correspondence between students from different countries are going to be developed. It is urgent for us to set up the English version of the collaborative part of the electronic schoolbag.

The teacher's skills have to widen ; he becomes a moderator and a tutor following the work online.

### **CONCLUSION.**

The idea behind the introduction of these I.C.T. activities is the need to adapt to the culture of the students of today. When we observe these teenagers, we see that they have abandoned some of "our" ways in favor of electronic games, video in all forms, mobile phones and SMS text messages.

Video-conferencing for oral communication and the electronic schoolbag for written work give a new dimension to the class. They enable us to associate students from other continents with the school activities. This community operates in a spirit of open-mindedness, of mutual understanding, of cooperation and sharing. This situation strongly stimulates students' motivation.

With Frontpage, Flash, Hot Potatoes, Netmeeting and the Electronic Schoolbag, we have the resources which allow us to enable the WKTO activities, to produce multimedia applications and to organize communication among all the members of the virtual community (both teachers and students), which are all extensions of our traditional teaching.

The content of the proposed activities are in accordance with the official curricula. The subjects to be studied are agreed by the teachers concerned and are drawn up each September.

The possibilities for innovation and development are huge. The fact that more and more students have internet access at home (for video games, interactive TV or personal computers) will have

an impact on the organization of schools. Our method of working together on a network is efficient : we can see our students progress. The combination of the three projects (mobile-learning + work-monitoring + international project of working together) should constitute the basis of the architecture for tomorrow's systems. We mustn't forget that I.C.T. have an important part to play in the economic and social development of Rhone-Alpes region.

As soon as we develop a new application we produce the corresponding training manual, which makes us immediately ready to transmit our know-how. This know-how is already transferred every time that we welcome a new school as a partner. The online integration process takes about 4 to 5 weeks.

The students involved in the project must work hard : some discover I.C.T. for the first time while others are already adepts. Some have home computers while others have to rely on the self-service system at school. These differences are taken into account so that none of them is left behind.

To organize these activities teachers must be enthusiasts. Their role is to encourage students to achieve their own goals. The cultural differences are wonderfully rich and each partner in the project brings his own particular skills and proposes solutions so that the whole project can move forward.

As you can see, our project doesn't try to adapt traditional school activities to the new digital environment, but to observe and listen to students in order to produce a method based on objectives which enables them to organize and be active in their own learning program.

The international team of teachers, composed of Adilson Pinto, Astrid Mammen, Atsushi Hirano, Bernard Garcin, Carmen Carpintero, Caroline Orton, Catherine Malcotti, Christèle Costa-Bauer, Giuliana Giuliani, Jean-Marc Cournac, Jim Murphy, John Heyl, Kiki Blixt, Kirsti Honkanen, Lene Struck Christensen, Marta Melis, Mary Vernet, Murielle Rialt, Roswitha Winter-Stein, Sigríður Anna Guðbrandsdóttir, Susan Fisher, Suzanne Jenner, Thomas Schäfer et Tuija Kae want to thank you for taking an interest in their work and invite you to visit their site :

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WKTO Coordinator  
Teacher of marketing

Mary Vernet  
WKTO associate  
Teacher of English

Roseline Espié  
WKTO publishing director  
Headmistress of Lycée l'Oiselet



## **ANNEXE : COMPOSITION OF THE VIRTUAL CLASSES.**

Virtual class 01. Haruhiko.Japan ; Tomomi.Japan ; Fumiko.Japan ; Asuka.Japan ; Kouji.Japan ; Brianna.Arizona ; Mykaila.Arizona ; Tyler.Arizona ; Lydia.France ; Christophe.France ; Célia.France ; Habil.France ; Anntonio.Spain ; Faustino.Spain ; David.Spain ; Alex.GermanyK ; Christian.GermanyK ; Leon.GermanyK

Virtual class 02. Patricia.Brazil ; Deisiane.Brazil ; Brian.Arizona ; Ciarra.Arizona ; Ian.Arizona ; Frédéric.France ; Cindy.France ; Virginie.France ; Laura.México ; Fiorella.México ; Daniel.GermanyF ; Christian.GermanyF ; Michael.GermanyF ; Tsubasa.Japan ; Yoshifumi.Japan ; Tomomi.1.Japan ; Tomomi.2.Japan ; Asuka.Japan

Virtual class 03. EdirCarlos.Brazil ; Germeson.Brazil ; Jon.Arizona ; Danny.Arizona ; Sally.Arizona ; Delphine.France ; Yoan.France ; Vanessa.France ; Claire.France ; Simone.GermanyF ; Sijiao.GermanyF ; Ana.Spain ; Sandra.Spain ; Leticia.Spain ; Tomoyuki.Japan ; Suguru.Japan ; Nami.Japan ; Yukiko.Japan ; Ai.Japan

Virtual class 04. Aline.Brazil ; Selma.Brazil ; Claudia.Arizona ; Jacob.Arizona ; Tony.Arizona ; Meliha.France ; Claire.France ; Emilie.France ; Nathalie.France ; Gustavo.México ; Stefanía.México ; Huschke.GermanyF ; Donal.GermanyF ; Clarissa.GermanyF ; Youhei.Japan ; Tomohiro.Japan ; Nobue.Japan ; Mayumi.Japan ; Yukiko.Japan

Virtual class 05. Shintaro.Japan ; Kazuyuki.Japan ; Hisae.Japan ; Misa.Japan ; Mamiko.Japan ; Martin.Arizona ; Michelle.Arizona ; Erin.Arizona ; Aurélie.France ; Aurélie2.France ; Rachel.France ; Majda.France ; Mitzi.México ; Claudia.México ; Alexander.GermanyK ; Johannes.GermanyK ; Maximilian.GermanyK

Virtual class 06. Reetta.Finland ; Sanna.Finland ; Ilaria.Italy ; Nicola.Italy ; Carly.Arizona ; David.Arizona ; Ashley.Arizona ; Cédric.France ; Sébastien.France ; Lionel.France ; Guillaume.France ; Levan.GermanyF ; Tobias.GermanyF ; Lenni.GermanyF ; Ryuichi.Japan ; Atsushi.Japan ; Mieko.Japan ; Fumi.Japan ; Hiromi.Japan

Virtual class 07. Erika.Japan ; Misako.Japan ; Noriko.Japan ; Yuki.Japan ; Monique.Brazil ; Alexandra.Brazil ; Ashly.Arizona ; Candace.Arizona ; Robert.Arizona ; Rémi.France ; Sherazade.France ; Florian.France ; Aurore.France ; José.Spain ; Javier.Spain ; Ralf.GermanyK ; Olli.GermanyK ; Gerrit.GermanyK

Virtual class 08. Vanessa.Italy ; Erika.Italy ; Brittany.Arizona ; Chris.Arizona ; Mehtap.France ; Emmanuelle.France ; Younes.France ; Anna.GermanyF ; Dennis.GermanyF ; Sebastian.GermanyF ; Javier.Spain ; Daniel.Spain ; Chika.Japan ; Asami.Japan ; Rie.Japan ; Kumiko.Japan ; Outi.Finland ; Hanna.Finland

Virtual class 09. Natacha.France ; Stéphanie.France ; Dalila.France ; Lionel.France ; Jordi.Spain ; Javier.Spain ; Roberto.Spain ; Martin.GermanyK ; Julian.GermanyK ; Tobias.GermanyK ; Mitsuhiko.Japan ; Takuya.Japan ; Risa.Japan ; Mika.Japan ; Kahori.Japan ; Heli.Finland ; Mervi.Finland ; Alessandra.Italy ; Gianfranca.Italy

Virtual class 10. Fatima.France ; Karim.France ; Camélia.France ; Ali.France ; Sonia.Spain ; Evaristo.Spain ; Marga.Spain ; Bilal.GermanyK ; Marco.GermanyK ; Anne.GermanyK ; Tatusmi.Japan ; Hitoshi.Japan ; Ayu.Japan ; Tamami.Japan ; Naoko.Japan ; Erika.Brazil ; Claudenia.Brazil

Virtual class 11. Thomas.France ; Frédéric.France ; Damien.France ; Lorena.Spain ; Alberto.Spain ; Sarah.GermanyK ; Jenny.GermanyK ; Philipp.GermanyK ; Takuya.Japan ; Fumihide.Japan ; Miu.Japan ; Yumiko.Japan ; Mayu.Japan ; Anu.Finland ; Anne-Mari.Finland ; Stefania.Italy ; Francesco.Italy

Virtual class 12. Ludivine.France ; Tatiana.France ; Delphine.France ; Daiel.México ; Paola.México ; Raphaela.GermanyF ; Martina.GermanyF ; Chikara.Japan ; Yukihide.Japan ; Takiko.Japan ; Shihoko.Japan ; Mayumi.Japan ; Mari.Finland ; Riina.Finland ; Daria.Italy ; Elisa.Italy ; Christian.Italy

Virtual class 13. Sandy.France ; Elodie.France ; Amalric.France ; Jessica.México ; Raul.México ; Laura.GermanyK ; Selma.GermanyK ; Anna.GermanyK ; Kazuya.Japan ; Kazuki.Japan ; Hatzuki.Japan ; Rie.1.Japan ; Rie.2.Japan ; Elena.Finland ; Leena.Finland ; Michela.Italy ; Ambrogia.Italy

Virtual class 14. Léonel.France ; Raphaël.France ; Elise.France ; Levan.GermanyF ; Lukas.GermanyF ; Rostyslav.GermanyF ; Yuki.Japan ; Mika.Japan ; Hiroko.Japan ; Asuka.Japan ; Shiho.Japan ; Henri.Finland ; Heikki.Finland ; Hannaleena.Finland ; Francesca.Italy ; Natascia.Italy ; Ivano.Italy ; Cristiane.Brazil ; Tatiane.Brazil

Virtual class 15. Nora.France ; Aurélie.France ; Dounia.France ; Nadja.GermanyF ; Andriy.GermanyF ; Marvin.GermanyF ; Kiyomasa.Japan ; Izumi.Japan ; Maho.Japan ; Hiromi.Japan ; Natalia.Finland ; Stanislav.Finland ; Keijo.Finland ; Nicoletta.Italy ; Elena.Italy ; Valentina.Italy ; Janaina.Brazil ; Giovanni.Brazil

Virtual class 16. Bérénice.France ; Ulrik.France ; Marilynne.France ; Sofía.México ; Armando.México ; Paula.Spain ; Laura.Spain ; Silvia.Spain ; Daniel.GermanyK ; Sebastian.GermanyK ; Damian.GermanyK ; Olaf.GermanyK ; Ryou.Japan ; Eri.Japan ; Rina.Japan ; Emi.Japan ; Fabio.Brazil ; Eloisa.Brazil

Virtual class 17. Mickaël.France ; Kat.Michigan ; Ellen.Michigan ; Faith.Michigan ; Ashley.Michigan ; Liesel.Michigan ; Bjort.Iceland ; Asta.Iceland ; Ragnheidur.Iceland ; Morgan.Sweden ; Ellen.Sweden

Virtual class 18. Alexandre.France ; Ronan.France ; Nora.Michigan ; Michael.Michigan ; Liz.Michigan ; Krystle.Michigan ; Antoine.Iceland ; Kristin-Arna.Iceland ; Valy.Iceland ; Asta Saeros.Iceland ; Soheil.Sweden ; Michael.Sweden

Virtual class 19. Frédéric.France ; Fabien.France ; Michael.Michigan ; Nicole.Michigan ; Lauren.Michigan ; Brenin.Michigan ; Adalbjorg.Iceland ; Silje.Iceland ; Astridur.Iceland ; Michaela.Sweden ; Julia.Sweden

Virtual class 20. Claire.France ; Sébastien.France ; Katherine.Michigan ; Chelsea.Michigan ; Alice.Michigan ; Colleen.Michigan ; Halla.Iceland ; Mardis.Iceland ; Helga.Iceland ; Stefan.Iceland

Virtual class 21. Laura.France ; Julia.France ; Erika.Michigan ; Edward.Michigan ; Cameron.Michigan ; Shelby.Michigan ; Heida-Bjork.Iceland ; Unnur.Iceland ; Genelyn.Iceland ; Kristin-Rut.Iceland ; Helena.Sweden ; Lili.Sweden

Virtual class 22. Victor.France ; Cyril.France ; Danielle.Michigan ; Helena.Michigan ; Matt.Michigan ; Esther.Michigan ; Caitlin.Michigan ; Ethan.Michigan ; Solveig.Iceland ; Sigridur.Iceland ; Hermann.Iceland ; Beatrice.Sweden ; Susanna.Sweden

Virtual class 23. Olivier.France ; Adrien.France ; Mickey.Michigan ; Josh.Michigan ; Vella.Michigan ; Andy.Michigan ; Margret.Iceland ; Magnea.Iceland ; Kristin-Bjorklund.Iceland ; Aasa.Sweden ; Tove.Sweden

Virtual class 24. Valérie.France ; Adélaïde.France ; Matt.Michigan ; Morgan.Michigan ; Ken.Michigan ; Dan.Michigan ; Anna.Michigan ; Johanna.Iceland ; Arni.Iceland ; Inga.Iceland

Virtual class 25. Michaël B.France ; Jocelyn.France ; Jacqueline.Michigan ; Emily.Michigan ; Hannah.Michigan ; Kat.Michigan ; Helgi.Iceland ; Heida-Lind.Iceland ; Catherine.Iceland ; Charlotta.Sweden ; Therese.Sweden

Virtual class 26. Alex.France ; Jonathan.France ; Ezra.Michigan ; Mark.Michigan ; Liz.Michigan ; Angela.Michigan ; Birkir.Iceland ; Olof.Iceland ; Asdis.Iceland ; Malin.Sweden ; Emily.Sweden

Virtual class 27. SPECIAL

Virtual class 28 : Alexandre.France ; Adrien.France ; Pierre.France ; Pierrick.France ; Stefan.Germany ; Jens.Germany

Virtual class 29 : Mélanie.France ; Olivier.France ; Marien.France ; Arnaud.France ; Daniela.Germany ; Sebastian.Germany

Virtual class 30 : Yannick.France ; Ronan.France ; Benoit.France ; Sylvain.France ; Ann-Kathrin.Germany ; Martin.Germany

Virtual class 31 : Mickael.France ; Laura.France ; Alexandre.France ; Sébastien.France ; Thibault.France ; Nicolas.France ; Sarah.Germany ; Mandy.Germany

Virtual class 32 : Julia.France ; Frédéric.France ; Mickael.France ; Jocelyn.France ; Romain.France ; Pierre.France ; Katharina.Germany ; Juliane.Germany

Virtual class 33 : Valérie.France ; Adélaïde.France ; David.France ; Timothée.France ; Matthias.Germany ; Florian.Germany

Virtual class 34 : Claire.France ; Aurélie.France ; Camille.France ; Aïlis.France ; Elise.France ; Enrico.Germany ; Steffen.Germany

Virtual class 35 : CiryI.France ; Victor.France ; Laurie.France ; Stéphanie.France ; Daniela.Germany ; Susann.Germany

Virtual class 36 : Jonathan.France ; Benjamin.France ; Laurence.France ; Jérémy.France ; Christiane.Germany ; Sandra.Germany

Virtual class 37 : Fabien.France ; Kevin.France ; Gael.France ; Jérémy.France ; Katja.Germany ; Heike.Germany

Virtual class 38 : Johan.Sweden ; Simon.Sweden ; Daniel.Sweden ; Sabrina.France ; Matthias.France ; Marion.France ; Claire.France

Virtual class 39 : Adela.Sweden ; Beatrice.Sweden ; Hanna.Sweden ; Anais.France ; Amélie.France ; Marion.France

Virtual class 40 : Victoria.Sweden ; Linnea.Sweden ; Anna.Sweden ; Virginie.France ; Céline.France ; Julie.France ; Romain.France

Virtual class 41 : Andrea.Sweden ; Louise.Sweden ; Anna-Lotta.Sweden ; Elise.France ; Coralie.France ; Christelle.France ; Olivier.France

Virtual class 42 : Petra.Sweden ; Emilie.Sweden ; Lisa.France ; Isabelle.France ; Resmiye.France ; Claire.France

Virtual class 43 : Hanna.Sweden ; Sofia.Sweden ; Lenitha.Sweden ; Marie-Laure.France ; Micheal.France ; Pauline.France

Virtual class 44 : Lina.Sweden ; Jessica.Sweden ; Emelie.Sweden ; Violaine.France ; Mathilde.France ; Anne-Sophie.France ; Marriannick.France

Virtual class 45 : Amanda.Sweden ; Raman.Sweden ; Manuela.France ; Anne.France ; Anais.France ; Audrey.France

Virtual class 46 : Claire.France ; Sabrina.France ; Resmiye.France ; Silvia.Italy ; Angela.Italy ; Ileana.Italy

Virtual class 47 : Anthony.France ; Michaël.France ; Stéphanie.France ; Paolo.Italy ; Davide.Italy ; Matteo.Italy

Virtual class 48 : Florian.France ; François.France ; Pierre.France ; Giacomo.Italy ; Alessandro.Italy ; Nicola.Italy

Virtual class 49 : Céline.France ; Manuela.France ; Stéphanie.France ; Letizia.Italy ; Emanuele.Italy ; Eleonora.Italy

Virtual class 50 : Christophe.France ; Marjorie.France ; Pauline.France ; Elisa.Italy ; Lorenzo.Italy

Virtual class 51 : Charlotte.France ; Déborah.France ; Pierre.France ; Jessica.Italy ; Claudia.Italy

Virtual class 52 : Florent.France ; Julien.France ; Romain.France ; Stefano.Italy ; Alberto.Italy

Virtual class 53 : Aurélie.France ; Lucie.France ; Raphaël.France ; Laura.Italy ; Chiara.Italy

Virtual class 54 : Anthony.France ; Jordan.France ; Gianmarco.Italy ; Enrico.Italy

Virtual class 55 : Claire.France ; Morgane.France ; Angela.Italy ; Valentina.Italy