

THE VIRTUAL UNIVERSITY

Models &
Messages

Lessons from
Case Studies

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L'Université virtuelle en Pays de la Loire, France

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A consortium



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List of abbreviations

AUF	Agence universitaire de la Francophonie (Agency of Universities of the French-speaking world)
DEA	Diplôme d'études approfondies
DESS	Diplôme d'études supérieures spécialisées (Diploma of Advanced Specialized Studies)
GIP	<i>Groupement d'intérêt public</i> (public interest group)
ICT	Information and Communication Technology
IUFM	Institut universitaire de formation des maîtres (University teaching training institute)
UVPL	Université virtuelle en Pays de la Loire (Pays de la Loire Virtual University)
UNESCO	United Nations Educational, Scientific and Cultural Organization

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1. Pays de la Loire Virtual University and its context

There are higher education institutions in the five departments that make up the region of the Pays de la Loire. They are spread over the three sites of Nantes, Angers and Le Mans, which are 90 kilometres away from one another and relatively close (between one and two hours by train or car) to the universities of Rennes, Tours and Paris. Each of the three state universities, as well as the private Université catholique de l'Ouest, has at least one or two branches located elsewhere:

- Université de Nantes in Saint Nazaire and La Roche sur Yon;
- Université d'Angers in Cholet;
- Université du Mans in Laval; and
- Université catholique de l'Ouest in La Roche sur Yon (ICES).

Besides these higher education establishments, there are also grandes écoles – eighteen engineering schools and two business schools. There are also specialized communication schools in Nantes and Angers as well as preparatory classes for the *grandes écoles* and Brevet de technicien supérieur courses, which enrol 19 per cent of the students in the region.

In September 2000, the 100,731 students admitted to establishments dispensing higher education (post-baccalaureate) in the Pays de la Loire region represented 4.8 per cent of national admissions. These students were divided as follows:

- 77,561 state sector (77 per cent);
- 23,170 private sector (23 per cent).

Action taken since 1984 in partnership with other local authorities (departments, districts, towns) to develop higher education in the Pays de la Loire has met many expectations and allowed the region largely to close the gap in this field. However, if one considers the proportion of students enrolled in higher education throughout the Académie de Nantes (the local education authority or school district, encompassing the universities of Nantes, Angers and Le Mans), the region still lags somewhat behind other regions in France: 35 per cent of the region's students are enrolled in second-cycle higher education compared to a national average of 37 per cent, and 12 per cent take third-cycle postgraduate studies compared to a national average of 16 per cent.

According to the latest published statistics, between 1994 and 1998 the number of employees in professional positions increased considerably (an average increase of 10 per cent) in the Pays de la Loire, and the 53,050 individuals represent 6.7 per cent of the regional working population and 3.5 per cent of all professional positions held in France (Association pour l'emploi des cadres – job centre for professional positions).

1.1 International context

The universities of Pays de la Loire have been committed to developing their international relations for many years. They attend many events abroad and have set up departments run by a vice-president or director of international relations responsible for developing these

relations. They participate in the activities of the GIP Atlantech (*Groupement d'intérêt public* Atlantech), whose role is the development and promotion of the region's higher education offer in other countries.

However, it was not primarily this interest in international relations that caused the heads of higher education establishments and local authorities to orient their thinking in a direction that would ultimately lead to the creation of the Université virtuelle des Pays de la Loire¹ (UVPL). For a long time, some of these establishments had been reflecting on the integration of new Information and Communication Technologies (ICTs), and participating in international activities. Indeed, since the 1980s, experimental activities to foster open and distance learning through community initiative projects (i.e. the Developing European Learning through Technical Advance programme and the Community Programme for Education, Teaching and Training) have been carried out integrating these technologies.

In 1996, the Réseau africain de formation à distance (African Network for Distance Education and Training) was set up at the initiative of the French Foreign Office. This project, which aims at developing distance learning in Africa, brought together a French university consortium and a scientific sponsoring committee made up of the Centre national d'enseignement à distance (national centre for distance learning), Fédération inter-universitaire de l'enseignement universitaire (inter-university federation of distance learning), Institut national de la recherche en informatique et en automatisme (national institute for research in IT and automation), Agence universitaire de la Francophonie² (AUF), UNESCO and African universities. In 1999, this led to the birth of the Diplôme d'université (university diploma) in Multimedia Communications at the Université du Mans. The Université du Mans was thus able to make this experience – designing and setting up a course using ICTs for distance learning – a positive one, and use it successfully within the UVPL.

There are examples of landmark initiatives within the European Community, such as the Universitat Oberta de Catalunya (Catalunya Open University), or the creation of a national digital campus within a federation of German universities. The use of ICTs for lifelong learning in countries such as the USA and Canada is perceived as being modern and dynamic. What is more, the institutions responsible for education and learning in those countries have shown that they can adapt to these techniques, which have great potential for the future, and they have thus contributed to enhancing their country's influence and reinforced their international reputation.

UVPL rapidly linked up with counterparts in Schleswig-Holstein (Germany), Somerset, Scandinavia, Catalunya, Chile and Quebec with the aim to develop project-by-project levels of cooperation, and not just framework agreements, with properly constituted teams for setting up, where possible, double major courses along with exchanges of teacher-researchers and students. The project that was developed at Le Mans with Quebec, in the context of a Diplôme d'études approfondies³ (DEA) in 'E-learning expertise and man-machine communication' is a good example of the kind of activity UVPL and its partners wish to strengthen.

Any organization that wishes to develop these kinds of services cannot ignore its outside partners. However, enrolling students from a number of different countries in distance

¹ Pays de la Loire Virtual University

² Agency of Universities of the French-speaking World

³ Level baccalaureate plus five years of university study.

learning programmes requires providing them with a certain level of assistance. It is necessary, for instance, to create links between teachers and local establishments, even if it is only for organizing specific work, meetings and examinations that the student must sit in person.

In Europe, the interest in developing distance learning has given rise to the ‘e-learning: *penser à l’éducation de demain*’⁴ programme set up by the European Commission to direct and federate initiatives in this area by the fifteen member countries.

The member states of the European Union have decided to work together to harmonize their policies in the field of educational technology as well as to share experiences. E-learning aims at supporting and coordinating their efforts as well as to accelerate the adaptation of educational and training systems in Europe (Viviane Reding, Commissioner for Education and Culture, May 2001).

1.2 National context

On the national level, the UVPL was born in the context of a profusion of projects, communication campaigns, and announcements, in short, in the midst of a multitude of ideas and initiatives. This contributed to making the public (university teachers, students, companies, decision-makers at all levels) aware of these initiatives. However, the media attention they received was often greater than the expected results, while a few rare cases with little media coverage had quite promising results.

In this environment, UVPL chose another strategy: defining the key objectives that were shared by all partners, which were then reflected in numerous projects of varying sizes, but feasible in terms of human, technical and financial resources.

The appearance of other new initiatives at the same time strengthened the UVPL undertaking. One example was the first call for ‘campus numérique’⁵ projects launched by the French Ministry of Education in 2000 (<http://www.educnet.education.fr/superieur/campus.htm>), which aimed at grouping a number of institutions located throughout the country into one project. In addition to the political will to offer courses to international students that would enrich the existing distance learning courses available in French universities, there was an objective to maximize the energy and human and material resources invested. This long-term approach was also a means of ensuring a French-language presence in the field of distance education, largely dominated by English-language, and particularly American, institutions. As the UVPL projects progressed, a number of thematic consortia were created, for example:

- Economics and management: Campus numérique d’économie et de gestion;
- Science: CampuSciences;
- Law: Campus Juridique 2000; ethical and corporate law: Campus ouvert droit éthique et société, Multidroit;
- Medicine and health: Enseignement, sécurité, santé et qualité à distance;
- Educational sciences: Formation en sciences de l’éducation.

There are also transversal consortia such as the Insertion socio-économique des thésards et enseignants (socio-economic insertion of thesis-writers and lecturers).

⁴ ‘E-learning: thinking of tomorrow’s education’

⁵ ‘Digital Campus’ projects

At the national level, it must be said that initiatives in open and distance learning are seriously hampered by the fact that, to advance their careers, teachers are encouraged to publish research papers, to the detriment of the development of innovative teaching practices. There are no formal means, either in terms of remuneration or career development, for recognizing the time that teachers spend on developing innovative teaching modules, even though the political position is to encourage teachers to become involved in distance teaching.

‘Faced with private interests, distance learning is a challenge that should be taken up by the public service of the national education system’ (speech by then French Education Minister Jack Lang, conference on e-education at the Education Fair, 22 November 2000). Thanks to a large number of individual initiatives, the number of distance learning courses has nevertheless grown. Not only do these courses help reach new audiences, but they also offer traditional students on-line assistance. National leaders are now looking at the issues of standards and quality assessment. These changes mean that production in the education sector is moving from a craft to an industrial stage. From now on, the importance of economic considerations will increase and the resulting issues will no longer concern just the individual author, but also the institution.

1.3 Institutional context

Five partners, each with a different status, have come together in the context of the UVPL project: the three universities of Nantes, Angers and Le Mans, the IUFM (Institut universitaire de formation des maîtres) of the Pays de la Loire and the regional authority, the Conseil régional des Pays de la Loire.

From a historical point of view, the initiative of linking higher education establishments in order to offer students in the Pays de la Loire a choice of quality distance learning programmes by using ICTs, belongs to François Fillon, then President of the Conseil régional des Pays de la Loire, and formerly three times minister in positions directly linked to higher education and new technologies. He was convinced that the social, economic and cultural development of a territory, albeit regional, could not be achieved by ignoring these means of communication.

Taking into consideration the importance of having human, material and financial means, the idea was to bring together all the experience, *savoir faire* as well as the teams of the different establishments participating in the UVPL project, and to set up new common work practices among the institutions. Without having been stated, this actually constituted a genuine cultural and organizational revolution for the universities, which since 1984 and the Savary Law had been concerned to safeguard their autonomy and were thus used to implementing their own policies without consulting one another. Moreover, higher education institutions tend to react immediately if they see local authorities interfering in their internal affairs. In spite of this, discussions got under way during the first half of 1999.

The various partners had both convergent and divergent motives.

Convergent

Over the past few years, a regular decline in the number of first- and second-year university students had been noted, which could continue until 2010. This decrease is due to different factors:

- a demographic decline starting in 1995, with an annual average decrease of 2 per cent, but of 4 per cent for the October 2001 intake; and
- increase in courses offered by engineering schools and Instituts universitaires de technologie (technical university institutes), and of Brevet de technicien supérieur (higher technical certificate) courses.

Even if large universities in the region, such as Nantes, the fifth largest university in France, felt safe from this decrease in enrolment, medium-sized universities such as Angers and Le Mans urgently needed to find ways to attract and keep new students in order not to lose government financial support, budgetary allocations and associated research laboratories.

Moreover, the Pays de la Loire region is two or three points below the national average in terms of students enrolled in second- and third-cycle university studies. Distance learning was seen as a way to reduce this gap.

Divergent

As one of the universities had more experience than the others in distance learning and had capitalized on its *savoir faire*, there was some concern that the leadership of the project might be appropriated by one member. Indeed, the Université du Maine (Le Mans) had already taken up the issue of organizing open and distance learning as a research theme, and had made it clear that the use of open and distance learning was one of its major areas for development, and would address all. This set the Université du Mans apart from the Université de Nantes, which had developed distance learning specifically for continuing education, and the Université d'Angers, which had not yet developed any distance learning programmes at all.

The IUFM not only operates in a different context, but also has a double function: offering initial training as well as continuing-education courses to primary and secondary school teaching staff. IUFM participates with the universities in the preparation of various recruitment examinations for teachers. However, in about ten years, 50 per cent of teaching staff, regardless of level, will have retired. This means that it is necessary to prepare recruitment examinations not only for the existing pool of potential teachers within regional boundaries, but also for candidates coming from a much larger population. The regional context is too limited to supply enough candidates for the various recruitment examinations. This type of difficulty has already been encountered in the recruitment of teachers for technical colleges.

With regard to the Pays de la Loire region and the launching of this distance learning project, there is, of course, the desire to present the local authority as a leader in this new field. Moreover, this local authority, which is responsible for professional training and continuing education courses, has found in the development of this initiative a way to concretely implement lifelong learning, a concept that has become increasingly important to future economic development. It is the means of ensuring both the development and preservation of economic activity.

Finally, this initiative is in line with the general policy launched by the Conseil régional des Pays de la Loire at the beginning of the 1990s. Aimed at ensuring that people from all social levels can benefit from new methods of communication and information, this policy has resulted in various actions, for example:

- the installation of computer communication networks, or local computer communication networks in secondary schools under the responsibility of the Conseil régional des Pays de la Loire, on the basis of project proposals submitted by teaching teams;
- an interregional project (Brittany, Pays de la Loire) to develop a high-speed network (Mégalis);
- signature of agreements for multimedia equipment in regional universities;
- refunding 50 per cent of costs linked to cabling student housing;
- sending out calls for projects concerning secondary (lycée) students (Mégalycées project), or for economic, social or cultural issues (Mégalis project); and
- the installation of cyber-centres, including in rural areas.

It should also be noted that over the past ten years students have become familiar with the integration and use of ICTs in secondary education. As new university students, they have certain expectations with regard to the educational tools that a higher education establishment should be able to offer.

The creation of UVPL is consistent with this policy and dynamic.

2. Creation and organization of UVPL

2.1 Creation

The UVPL project was launched in April 1999. Each university elected a representative to participate in a working group that was in charge of starting to reflect on the project and to consider its feasibility. The specific tasks of this working group were the following.

Identify the needs and expectations of target audiences to be defined

An external consultant was given the task of conducting market research based on a representative sample of the regional population. A comparison between these results and those of market research carried out in other regions of France was then to be made. The aim of the market research was to determine the best match between public expectations and courses that could be offered. The survey specifically aimed at defining the:

- potential clientele (quantitative and qualitative);
- course needs by theme, level and geographical areas;
- availability of potential students;
- expectations in terms of support and follow-up; and
- course scenarios according to different audiences.

Analyse the technical and financial feasibility of the project

Using market research and the findings for an existing audit carried out in the Pays de la Loire and in France, it was necessary to:

- define the organization (architecture) of the project, and describe its components;
- carry out documentary research on the environment;
- assess budgetary and technical feasibility, in terms of building and maintaining the project, as well as ensuring its evolution towards other national and/or international partnerships;
- draw up a general timetable for the project as a whole;
- set up a plan for holding meetings;
- monitor other similar projects.

It rapidly became evident that it would have been very difficult to put the results of this market research into practice, since it was more of a survey than true market research. For this reason, the option that was eventually chosen was to develop courses and online resources to improve qualitatively the teaching of traditional students through more modern educational practices and to introduce new services, such as tutoring, self-assessment tools or even independent learning. The overall objective that the virtual university set itself was to offer any student enrolled in one of the participating establishments full and open access to all available online resources.

Three years later, on 12 April 2002, an agreement was signed between the universities of Nantes, Angers and Le Mans, the IUFM and the Conseil régional des Pays de la Loire, which marked the official creation of the UVPL. The official definition of UVPL is as follows: ‘a tool that aims at offering a tutored education leading to a qualification, mainly in the context of lifelong learning’. Instead of setting up a fourth state university in the Pays de la Loire, the

creation of the UVPL has meant that the heads of the participating establishments need to share and make their resources available to one another.

The presidents of the universities of Nantes, Angers and Le Mans have entrusted UVPL with seven major objectives. They are:

- developing open and distance learning courses in line with the social, economic and cultural development of the Pays de la Loire;
- integrating the use of ICTs in education into traditional teaching;
- setting up professional training courses;
- developing research in e-learning expertise;
- developing partnerships with higher education establishments in France and abroad;
- greater sharing of resources among the higher education establishments participating in the UVPL;
- meeting the education and training needs of external organizations.

In all, more than three years were necessary to implement this policy. The working group that was set up in April 1999 to lay the foundations of UVPL became the Steering Committee, and over the years it has managed to create a climate of confidence among its members.

Various actions with regard to UVPL have been launched targeting university faculty; these include:

- information and awareness campaigns for administrative, technical and teaching staff within the establishments (24 January 2001, Université d'Angers);
- first UVPL summer school session (10–12 July 2001, based on the theme 'What education methods for distance teaching?'); and
- second UVPL summer school session (10–11 July 2002, based on the theme 'From European policies to regional achievements').

Since 1993, contact has also been made with other regional consortiums, such as Grenoble universités campus ouvert in Grenoble and the Campus numérique Breton in Brittany.

2.2 Organizational structure

In order to facilitate effective financial support for these and future operations, it became apparent that UVPL needed to have its own administrative and financial structure, with staff and financial means being provided mainly by the Pays de la Loire region. The administrative structure of UVPL is provided by GIP Atlantech, a public interest group that was constituted on 19 February 2002. It groups together all the private and public higher education establishments in the Pays de la Loire region and offers them a certain number of services, such as:

- promoting regional capacities in higher education, as well as fostering transversal higher education and research tools and projects through the development of new ICTs;
- providing a forum for meetings and exchanges between university teachers and corporate representatives;
- supporting the international relations of its members through developing exchanges and facilitating the circulation of information.

Being an organization with financial autonomy, GIP Atlantech has a board of directors, with the state universities representing the majority.

The operating structure of UVPL is based on the concept of a ‘relay-station’ set up in each of the participating institutions. The ‘relay-stations’ act as a common service for the UVPL while acting on behalf of its own institution. They include:

- Université de Nantes: Campus ouvert (open campus);
- Université d’Angers: Service des technologies de l’information et de la communication (service for ICTs);
- Université du Mans: Centre d’aide à la virtualisation de l’Université du Maine (support centre for a Virtual Le Mans University);
- IUFM: ICT.

The UVPL Steering Committee has integrated GIP Atlantech, and the university presidents have reviewed its composition. It now comprises members nominated by the president or director of each member establishment. Generally, each establishment nominates two people, one for policy and the other for technical issues. The Steering Committee meets at least once every two months. A GIP Atlantech representative ensures the logistics of these meetings.

The Steering Committee has the following responsibilities:

- analyse projects;
- propose solutions and guidance;
- execute decisions made by the Strategic Committee;
- assess its achievements and its impact based on criteria defined by the Strategic Committee;
- give an account of its activities to the Strategic Committee;
- prepare the work of the Strategic Committee.

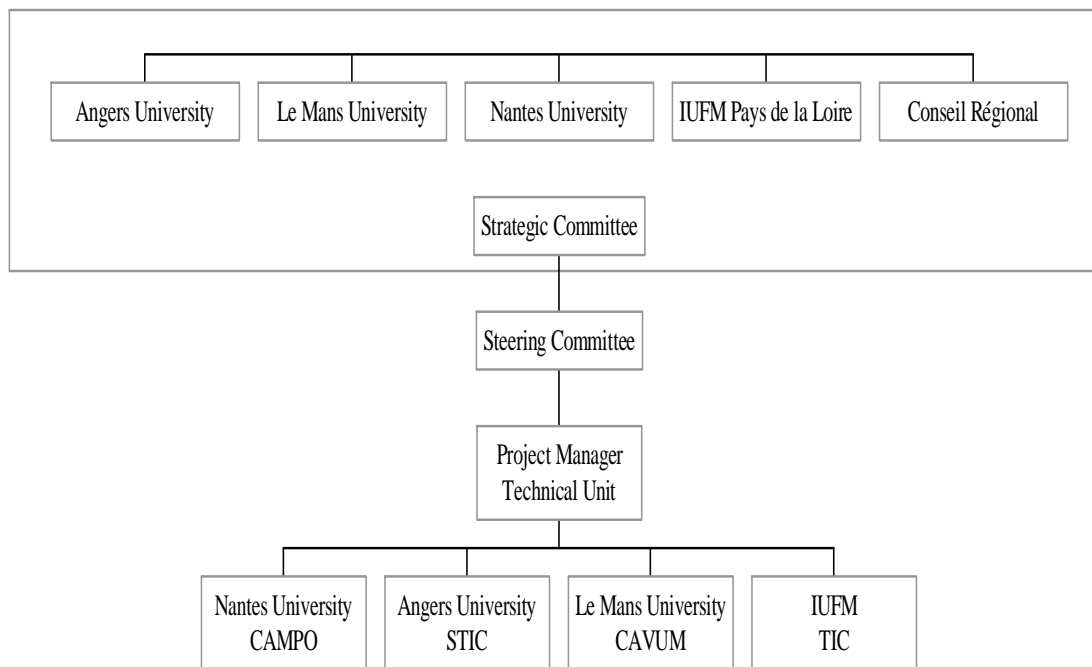
In short, the main tasks of the Steering Committee are to inform, recommend and execute the decisions of the Strategic Committee, which defines the strategic direction of the UVPL project and has authority over the Steering Committee. The Strategic Committee is made up of the university presidents of Nantes, Angers and Le Mans, the President of the Pays de la Loire region and the Director of IUFM (or their appointed representatives). It meets on the initiative of the President of the Pays de la Loire or, if need be, following a request made by one of the other committee members. In any case, the Strategic Committee meets at least three times a year.

A pivotal role is played by the project manager, who has the necessary skills with regard to open and distance learning, and is responsible for the following tasks:

- advising those proposing projects;
- carrying out technical, educational and financial feasibility studies for projects;
- monitoring the implementation of projects;
- testing and validation procedures;
- initialization when projects go online;
- maintenance and evolution of the portal.

The project manager also manages contacts and monitors technological developments. The organization of UVPL is presented in Figure 1.

Figure 1 UVPL functional organization chart



The usual method for initiating and setting up distance learning course modules is as follows. In October 2000 UVPL sent out a permanent call for projects to the staff of each member institution. This was done using ICTs for education and the UVPL ‘relay-station’ in each establishment. The ‘relay-stations’ pass on to UVPL the projects that seem the most pertinent and that fit the criteria defined by the Strategic Committee. Only projects that involve a minimum of two partners are retained. The UVPL project manager is responsible for ensuring the technical, educational and financial analysis of the project proposals and helps to define the relevant training needs for faculty and engineering, administrative, technical, health and service staff that the projects would entail.

Typically, a project goes through the following steps:

- Projects Campus ouvert – Service des technologies de l’information et de la communication – Centre d’aide à la virtualisation de l’Université du Maine – IUFM;
- project transmitted to Steering Committee;
- project manager studies feasibility;
- Steering Committee analyses applications;
- Strategic Committee makes decision;
- the corresponding UVPL institution implements and then follows up on the project;
- project manager follows up on the implementation of the project;
- Steering Committee oversees the performance of the project;
- Strategic Committee is informed of the results.

A UVPL portal has been operational since September 2002 (see <http://www.uvpl.org>). It offers information, advice and work tools to students and teachers, as well as information for companies and other organizations.

The main functions of the portal are to:

- offer general information on the structure and operation of UVPL;
- advertise distance learning courses offered by UVPL establishments;
- provide educational resources, either through free access or restricted access limited to Pays de la Loire students;
- offer teachers access to resources that they can either integrate into their traditional courses or use to develop distance learning courses;
- give access to distance students to course platforms.

The UVPL portal will also offer standard options normally available on this type of site: diaries, news, links, search engines and online application forms.

3. Administrative issues

3.1 Administration

UVPL's administration can be considered from several angles: users (students, teachers and other staff), projects, portal, platforms and management.

UVPL has placed the user at the centre of its preoccupations: the administrative steps that students must take in order to be able to attain their educational objectives need to be made as easy as possible. The first step a student takes is to look for a programme of study. The UVPL portal provides detailed answers, information on available courses and their content, and other useful information that help to ensure that the choice the student makes is appropriate. At this point, the student has the possibility of submitting an application to enrol through the UVPL portal. Since UVPL itself is not an educational establishment, it cannot accept applications or hand out diplomas. However, the student's application can be treated according to the various procedures agreed on with the establishment offering the specific course or courses, without the student having to be involved. If the course has prerequisites, such as diplomas or a specific degree programme, the establishment must first validate the student's situation and confirm that s/he meets the criteria necessary to follow the course and, second, manage any requests for further information. What is more, current student enrolment procedures still require an original signed document from the applicant. Once the enrolment process has been completed, the information needed to set up an access profile for the UVPL portal is automatically transmitted between the database that manages the establishment's students and UVPL. The student is then given a login and a password like all traditional students. For students whose course requires access to a platform (Learning Management System) on the UVPL portal, a unique identification procedure allows them to move effortlessly from the portal to the platform (Single Sign-On procedure). As soon as students start a course, their progress is supervised by the teachers and tutors of the institution offering the course. This means that the teachers and tutors are in charge of the course and, in the context of the establishment's procedures, are responsible for ensuring the validation of the course. Awarding the diploma is also the responsibility of the establishment offering the course, in conjunction with partners if there are joint diplomas. Examples of representative exchanges are given in Table 1.

The UVPL 'relay-station' in each establishment is responsible for the:

- logistics of distance and open learning courses;
- creation and maintenance of educational resources;
- configuration of work environments;
- transmission of information needed to update the database of student access.

They also provide UVPL portal with general information on courses and online resources, and are able to handle technical queries from users.

Managing the staff, teachers, tutors and technicians is the responsibility of each UVPL member university. Projects for developing resources or courses are initiated by the universities. They are then analysed, assessed and validated by UVPL in accordance with a procedure described in detail below (Section 4.2).

Table 1 Examples of representative exchanges

Tasks	Student	UVPL	Establishments		
			UVPL relay	Education	Teachers, tutors
Access for traditional students	D	I	I	E	
Creation of virtual classes	D				E
Creation of educational resources	D		I		E
Information request	E	I	I	D	
Application request	E	I	I	D	
Course information forms	D			E	
Login	D	I	I	E	
Enrolment	D			E	
Maintenance of resources		I	D		E
Putting resources online		I	D		E
Student exercises	E				D
Prerequisite tests	D		I		E
Tutoring	D				E
Validation	D			I	E
Validation and correction of student exercises	D				E

E Initiator: originates the procedure or information.

I Intermediary: intervention is non-systematic.

D Final target.

Source: UVPL internal documents.

The portal and platforms are supervised by the UVPL technical team. Using ICTs, the universities provide UVPL with information, resources and courses. User accounts are updated automatically and regularly. The UVPL technical team is often confronted with inappropriate contacts that arrive at the portal, and it forwards these to the relevant institutions whether they be individual or corporate requests or from other institutions.

3.2 Costs and financing

GIP Atlantech deals with UVPL's financial management, particularly with regard to grants awarded to projects. The Conseil régional des Pays de la Loire has allocated a specific budget for UVPL. The current annual budget of US\$1.6 million covers the costs of running UVPL, creating and maintaining the portal, remuneration of personnel directly linked to the project (project manager, webmaster, administrative assistant), and communication and courses. In total, nearly 85 per cent of the funds are directly available for creating course modules or online educational resources.

After UVPL institutions have submitted their project proposals to the project manager for technical, educational and financial analysis, as well as a feasibility study, the projects are presented to the Steering Committee and then to the Strategic Committee, which determines the financial base that will be necessary for the projects to be carried out. UVPL only finances costs linked to the initial development of a project, that is:

- remuneration of teaching staff and engineers on the basis of US\$291 per day for a teacher and US\$187 for a technician;
- purchase of specific software;
- travel costs generated by meetings between teams that are partners in a joint project.

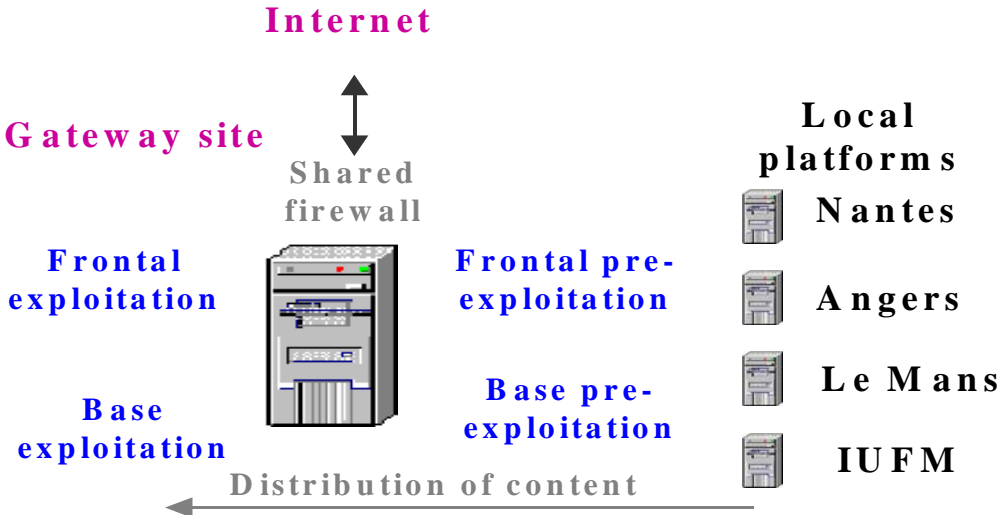
UVPL does not finance the purchase of equipment. Other programmes, in particular regional ones, can be contracted for this kind of investment. The UVPL institutions bear the educational operating costs of online courses, which include tutorials, educational supervision, examinations, and updating course content. However, if updating means totally revising the course offer, the project may receive logistical support from UVPL. Students who enrol in a course via the Internet do not enrol in UVPL as such, but directly in the institution offering the course, with fees fixed by the elected council of the institution.

3.3 Technological infrastructure

The main idea was to create a system based on simple solutions that would reflect UVPL development. This desired simplicity will guarantee the system’s robustness and its adaptability. The technical infrastructure is centred on the service offered to the users. Over and above the local elements that relate to the situation of each user, the heart of the system is the portal accessible via the Internet. The system’s overall architecture is outlined in Figure 2.

The hub is the server. For both physical and computer security reasons, this server is currently housed by a service provider, pending a permanent home in the information technology department of the Conseil régional. This will mean large-scale savings in terms of maintenance and security as well as a connection to the high-speed network Mégalis with no extra cost.

Figure 2 The UVPL system’s overall architecture



The UVPL portal offers all the functions of a gateway site, with the added bonus of providing access to the course platforms chosen by the partner establishments. The aim here is not to adhere rigidly to the choice of a single platform supplier, but to maintain flexibility and adaptability with regard to what course platforms can offer. It is a forum for exchange where users have access to a specific area according to their individual profiles, for example:

- free access to educational resources available to everyone;
- course information for future students and companies in the context of professional training or continuing-education courses;
- restricted access to educational resources available to students and teachers from Pays de la Loire;
- open and distance learning possibilities for students, teachers, tutors or administrators.

The online forum, message service, shared or collaborative work spaces and discussions are only available through the course platforms and their integration is desirable for educational reasons. Indeed, all users are able to find within their own universities a personal virtual desk where these functions are available. It should be noted that setting up virtual desks (or student areas) started in the 1990s in the Pays de la Loire institutions. The regular use of such an area with a message service, storage space, Internet access, and the option of publishing one's own Internet pages, has given rise to a culture where ICTs are easily integrated.

The server also has an area that is shared by certain users. Teachers can load course modules that their colleagues may work on and revise. In the same way, course developers can share their work with one another as they progress. All the tools available through the UVPL portal promote working at a distance, whether it be for users or for teachers, administrators, and other participants. In addition to this server, traditional communication tools are also used, such as post, telephone, facsimile and videoconferencing.

The 'relay-stations' within each institution provide a wide range of technical expertise by grouping together computer programmers, course developers, e-learning experts and audiovisual technicians. In addition to obtaining information on UVPL, teachers are able to use this *savoir faire* to help them in developing open and distance learning courses. Each 'relay-station' possesses, to varying degrees, development platforms for courses as well as digitization resources, computers, servers, scanners, digital workbenches, and audiovisual tools. The 'relay-station' staff use course development software that makes it possible to digitize resources and to plan the instructional design and logistics. In the initial test stages, they are able to work directly on the platforms of the portal in areas that are not yet available to students.

With respect to users, there are various situations.

- Students or future students may have their own computers and their own Internet access. This will allow them to work independently. If this is not the case, they can have free Internet access through computer centres in their universities. Open and distance learning students can obtain access through local partner universities or within their companies if they are enrolled in professional training or continuing education courses.
- A similar arrangement exists for teachers and tutors, which can be supplemented by the loan of a laptop computer at certain times, such as during development periods. This equipment may be loaned by the establishment managing the course or a 'relay-station'.
- For administrators, a computer workstation is part of their daily work environment. The only addition might be access to the Internet, if they do not already have it.

- For administrative tasks and access to the portal, UVPL uses the local GIP Atlantech network.

3.4 Intellectual property ownership and copyright

While, technically speaking, it is always possible to find more or less long-term solutions to meet the needs of teachers and other users, those involved with open and distance learning or online courses have yet to find a satisfactory solution regarding the rules governing intellectual ownership and copyright.

The conventional legal framework, which may be adequate to cover the use and dissemination of information in traditional face-to-face education, is not adequate to deal with issues regarding information dissemination on the Internet. These new means of disseminating information are so powerful that it has become impossible to control, or even to quantify, the publication of documents. There is also a considerable risk that courses may be duplicated and reused by third parties. Another problem that needs to be solved is ensuring that all the information made available on the website by teachers is really their own work and that they possess the right to use, disseminate and exploit it. For resources that are to be used, rights can be or have been acquired by the institutions. Institutions consider that any document diffused on the Internet that has been prepared by teachers as part of their jobs is the property of the state that pays their salaries.

In the absence of clear texts to govern this very specific field, the current approach that UVPL has adopted at the request of its partner establishments is to let each establishment deal with copyright problems and remuneration of teachers internally. UVPL simply requests that each establishment provides an agreement regarding the rights for disseminating online courses and resources. This approach is in keeping with the spirit of UVPL, which does not wish to interfere with the management of its partner institutions and leaves them free to act as they see fit. UVPL posts a general copyright warning for users of its website.

4. Academic issues

4.1 Programme development

E-learning tends to eliminate the distinction between initial higher education and professional training or continuing education courses. This is in keeping with the concept of lifelong learning, which, when implemented, creates a real continuum between the levels and modes of education.

At this point, the administration of initial education and that of continuing education are separate. However, the latter tends to be at the forefront of innovative educational methods and have specifically tailored courses for their learners. Continuing education services have been involved in distance learning techniques for many years, and are a valuable source of experience (e.g. for organizing tutorials) that UVPL can use for the teaching and education in general. Another interesting aspect is the knowledge about the economic environment that they gained through the experience of providing training to companies. One of the main objectives that the Strategic Committee has set for UVPL is openness to the economic, social and cultural sectors. The Strategic Committee aims at developing in the universities degree programmes leading to professional qualifications, such as the DEA or the DESS (Diplôme d'études supérieures spécialisées)⁶ rather than putting classical university programmes online, whatever the level. It considers that this type of study can be dealt with at a national level or within the context of consortia that already exist or that are being formed.

With clearly set objectives and intentions, the Strategic Committee favours a pragmatic and realistic policy, and studies each project in light of the cooperation it may develop, its target audiences, its interaction between so-called initial education and continuing education. The point is not for UVPL to repeat what others are doing perfectly well, but rather to find niches that will be its own specialties (for example, continuing education programmes for pharmacists, or courses on industrial ownership or fiscal procedures courses, etc.). Nevertheless, it is important to learn from different experiences, at the beginning, project applicants who do not fit the criteria will not be rejected out of hand. However, a simple and rapid procedure for analysing projects has been set up.

Project assessment and the decision-making process

UVPL decided to put out a standing call for projects. In keeping with the objective of rapid development of UVPL and the wish to encourage a maximum of individual initiatives, the Strategic Committee decided not to impose a rigid calendar on those wishing to propose and implement projects. The call for projects was announced for the first time in Angers in January 2001, during the first conference introducing UVPL to university staff. More details were given about this approach during the summer session of July 2001, and the date for launching the call for projects was set for October 2001. A short two-page document was distributed so that each project could be presented to the Steering Committee.

At the Steering Committee meeting on 18 December 2001, UVPL correspondents presented an inventory of the project proposals from their respective establishments. There were sixty-one project proposals (thirty from Angers, thirteen from Le Mans, sixteen from Nantes and

⁶ Diploma of Advanced Specialized Studies – level baccalaureate plus five years of study.

two from IUFM). The Steering Committee assessed these projects, particularly with regard to the UVPL objectives noted above, the quality of those proposing projects, and the possibility for a real partnership within UVPL. After this first assessment, the Steering Committee retained fifty-one projects for a more detailed analysis. They were distributed among different discipline areas as follows:

- ten for law and economics;
- eight for letters and social sciences;
- nineteen in scientific fields;
- eight in health fields;
- four for technology;
- two for the preparation of IUFM recruitment examinations for teachers at technical colleges (i.e. in areas such as truck driving and car-body building).

Many of these projects cover the full range of university courses: 21 courses are at the postgraduate (third cycle) level, twenty-three at the *licence* and *maîtrise* (second cycle) level, seventeen the first-cycle (first two years) level, and two are refresher courses for first-cycle students and those preparing for the Diplôme d'accès aux études universitaires (diploma for access to university studies).

At the beginning of 2002, a more detailed model for presenting the projects was made available. This document is in the form of a dossier with different sections to provide a full description of the project. This working document makes it possible to follow all the steps used for assessing the project: analysis by the UVPL project manager (educational, technical and financial feasibility); proposal by the Steering Committee after assessment; and decision by the Strategic Committee.

The main sections of the document focus on these different points:

- the commitment (in writing) of the different participants in the project: the individual proposing the project, the university's UVPL correspondent, the head of the university faculty who is administratively responsible to the university supporting the project and, finally, the partners inside or outside UVPL;
- a description of the project noting the issues it raises, its objectives, target audience and potential audience (initial training or professional training and continuing education courses), the type of model to be used (face to face or entirely distance learning, with variations in between), educational strategy, characteristics of the instructional design and logistics (with regard to students and teachers), student evaluation methods and enrolment fees;
- resources to be made available: static resources (the student does not interact with the content), interactive resources (the system reacts to information supplied by the student), and a collaborative environment (with communication tools, such as a message service, forum or chat, shared files, help);
- position of the project with regard to the marketplace, with an analysis of the existing offer and of the value added that the project would contribute;
- organization of the project: composition of the project team, organization of collaboration and partnerships, task and resource allocation within the team, and provisional calendar;
- provisional budget showing income and expenditures.

This document, which is compiled by the individual proposing the project with assistance from the UVPL correspondent, is evaluated by the UVPL project manager who takes into

account its technical, educational and financial aspects. The results of this analysis are then presented to the Steering Committee, which decides whether it should be passed on to the Strategic Committee for a final decision. In some cases, it may be deemed better to postpone the decision or ask the project holder for further information.

The Strategic Committee, which has a summary of the project including the various recommendations of the UVPL project manager and Steering Committee, makes the decision whether to support the project and specifies the financial allocation. The university president and the project holder, as well as the other members of UVPL, are informed of the decision made by the Strategic Committee.

Once the project has been accepted, it is handed back to the person who proposed it, who proceeds to implement it with the assistance of the technical services in each establishment and, if necessary, of the UVPL Project Manager. Depending on the size and the complexity of the project, this stage may take several months to several years. The Steering Committee is responsible for examining the educational aspects of the project and gives the authorization for it to be put on the UVPL portal.

The final project generally consists of either:

- an open or distance learning system that, in most cases, will be housed on one of the platforms of the portal; or
- educational elements that constitute the resources utilized are made available to Pays de la Loire students, who may not be necessarily enrolled in an open or distance learning programme, but who can use these resources freely throughout their university studies.

This approach fits the objective of sharing resources, which UVPL has defined for students and teachers. It should be noted that some projects have different objectives, for example, one objective may be developing tools for teachers so that they can enrich their traditional or distance teaching practices.

Information files on each new project (or programme) can be found through the Internet at the UVPL site. These files consist of:

- a presentation of the whole planning of the instructional design and logistics, and details on credits; and
- a presentation of online resources.

The information files have an identical format and, in approximately twenty standardized sections, show the main characteristics of each programme, its content and use. The objective of the files is to provide future students, students currently enrolled in a course, or any other users with an immediate overview and a good perspective of the basic approach. The programme is presented in a way so that it may also interest students or learners whose studies are in a different discipline.

In order to ensure the possibility of making the databases of these information files interoperable, their format has been conceived so that they can be integrated according to different international standards currently being established. Moreover, UVPL participates in the working group that will draw up proposals for the Association française de normalisation (French Standards Association).

For each project that is put online, an agreement is signed between GIP Atlantech and the establishment that has produced the project. This agreement defines the usage and distribution rights of the content that is online and has been put on the UVPL portal. The signature of the document releases funding for the project. Implementation and accessibility of the project on the UVPL portal can be on several levels:

- free access for certain resources;
- reserved access with login and password for students or any other user enrolled in a UVPL establishment; or
- individual access for students enrolled in an open or distance learning course.

It is up to each establishment to set the level of accessibility that it wishes to give to its online products. The objective of developing new products or systems favoured by UVPL has thus been reached: the project is now operational. The institution that submitted the project is now responsible for ensuring that the educational elements function properly and continue to function.

By July 2002, UVPL reached cruising speed. Twenty new initiatives were added to the sixty projects that were initially supported; in April and June 2002, twenty-seven projects were analysed of which fifteen were accepted by the Strategic Committee. This represents a financial commitment by UVPL of US\$681,000 for projects spanning the period 2002 to 2004. Moreover, the UVPL partner institutions have agreed in principle to make certain existing courses available on the portal. The development of an inventory is currently under way.

The time span from the initial project proposal to a decision by the Strategic Committee is approximately three months. The objective of optimizing the time frame thus appears to have been achieved. However, in order to maintain this momentum, it is important that all project holders are regularly informed of the progress of their applications, a task that is a matter of priority for UVPL correspondents. The flexibility that is gained through the absence of time limits for those proposing and implementing projects means that it is possible to deal rapidly with projects and to maintain momentum within the project teams.

The intended and real transparency with which information circulates among participants on all levels guarantees the credibility of the UVPL structure and of its project analysis and decision-making. This information flow allows project holders to be joined by other interested parties. What is more, the project holders become vectors for making UVPL known, and for making it a part of the daily operation of the institutions.

4.2 Teaching and learning

UVPL offers a series of open and distance learning courses. Each course has its own structure and instructional approaches, which vary according to the subject, the target and environmental constraints. Even with the multiplicity of courses that have been or are being developed, it is possible to observe the emergence of models. Educational resources and a learning environment constitute the common basis.

Educational resources can be divided into two categories.

- Static resources (i.e. text, images or audiovisual): these represent the basic elements of a class plan or course but remain inert whatever the situation, these resources do not change.

- Interactive resources: these are elements that can integrate reactions or parameters supplied by students. For example, students fill in a table or a formula and the system calculates the answer or a three-dimensional animated object that the students can then move as they wish. Self-assessment exercises are another typical example of this interactivity: the students' replies are assessed and commented on, and a further course of study or revision can be proposed to the learner.

These resources are accessible online through the Internet, although they may be protected by a password in order to limit their use. This is done systematically from the moment a course is housed on a software platform. In certain cases, these resources are available on a CD-ROM so that they can be used without connection to the Internet, thus reducing costs and avoiding technical difficulties.

The learning environment is made up of both technical and human elements. The technical elements consist of tools that the various actors involved in course delivery use to communicate with each other and work together. The UVPL portal and its software platforms are the central element integrating:

- electronic message system ('private' contacts);
- forums (public contacts);
- electronic conversation areas, chat;
- the possibility of sharing applications at a distance;
- the possibility of accessing a remote computer; and
- file sharing.

These functions can be envisaged in different temporal areas, either synchronous (real time) or asynchronous (deferred time).

All these technical functions would be nothing without a team of people to operate them. The first actor is the student, who must be able to communicate:

- with the administrative structure to find a course and enrol;
- with teachers to obtain further information;
- with tutors to build up a course plan, follow it up and validate it; and
- with other students to share their difficulties and successes.

Only when these contacts function smoothly will the various participants be able to work together effectively, maintain their motivation, and keep the drop-out rate at a minimum.

Often courses combine some parts where students are present and others where they learn at a distance. These courses can be described as blended learning. In fact, only a few courses are completely distance education. Some blended learning courses have been operational in the universities of the Pays de la Loire for several years. Subject to the agreements, these courses will be made available on the UVPL portal.

One of the first blended learning programmes developed was the DESS entitled 'Linguistic policies and educational technologies in language teaching', set up by the universities of Angers and Le Mans. The programme is for students who have obtained a master's in foreign languages, such as a degree in French as a foreign language, and who already occupy, or may in the future occupy, positions of responsibility in the field of linguistic policy. While the programme may be followed by students who are present on the university campus over a

period of one year, there is a distance module to help students become familiar with this educational mode. Further, in order to meet the needs of people who already work and who are often abroad, this same programme can be followed at a distance over a period of two years. This provision is supported by the Office for French Foreign Affairs. In general, the students come from about thirty countries.

The programme comprises two three-week sessions with students present at the university in France. One takes place in July, when professional activities tend to slacken off and when those living abroad tend to return to France. This first session is an opportunity for students and teachers to meet one another, share knowledge and work together, thus making long-distance exchanges throughout the course much easier. During the second session, which takes place between the first and second year, certain assessments are also made.

During the distance sessions of the programme, students have access to online educational resources. In the case of certain students for whom the quality or the cost of Internet connections is an obstacle, resources are put together on a CD-ROM, thus allowing students to use the Internet connection solely for contacting one another and/or teachers. At any moment, students may use the most relevant form of communication to contact the various actors in the course, be it other students, teachers, administrative staff, or course platform administrators. Although the electronic message system is the most frequently used means of communication, forums, chat or traditional methods are also used. UVPL is currently backing the development of a project with a similar structure: a DESS in 'language professions'.

Another programme worth illustrating in detail is the licence (bachelor's degree) in chemistry. It was set up in 2000 by the Université du Mans and currently has an enrolment of about forty students, most of whom are from France. This programme was accepted in the framework of the 'second-cycle physics and chemistry' Campus numérique project supported by the Ministry of Education and Research. The programme is comprised of eight modules that students can study for over a recommended minimum period of two years.

In addition to the educational environment described for the previous programme, many modules use interactive resources that allow students to carry out their own experiments. For each module, distance students submit weekly work to their teacher-tutor. They receive the corrected work within 48 hours. During two weeks per year, distance students need to be present for laboratory work. These periods are also an opportunity for them to sit examinations, which are identical to those given to students who are present on campus.

In September 2001, a joint programme for obtaining the Diplôme universitaire de français langue étrangère (university diploma in French as a foreign language) and for obtaining a licence in letters with a concentration on French as a foreign language, was started experimentally at the Université du Mans and became operational in September 2002. This programme has a vocational objective and is for people who would like to teach French as a foreign language in France, abroad in French organizations or in the private sector. This programme is totally distance learning. Only the evaluation takes place on the campus of the Université du Mans, or at a partner university so that students do not have to come to Le Mans.

An example of another type of degree programme is the University Diploma in Multimedia Communications, which was created by way of local agreements. This programme was initially set up by a consortium of French universities that participate in a scientific Committee of which UNESCO is a member. It was organized within the context of the

Réseau africain de formation à distance (African Network for Distance Education and Training), following the initiative of the Cooperation Service at the Office for French foreign affairs. The diploma is issued jointly by the Université du Mans and an African university. Lomé, Ouagadougou, Antananarivo and Dakar universities are in charge of the part of the programme where students need to be present, and organize the on-site multimedia classrooms where students can obtain Internet access and help from an assistant. These universities also participate actively in the assessment process. The Université du Mans puts the various courses online and is responsible for the tutorials.

The Master's degree in literature with an option in children's literature was also created as a total distance learning course. Again, only the evaluation requires the students to be present, and these can take place at decentralized sites. The programme may be completed in one or two years, and targets a very wide audience. When it was first offered in September 2001, students showed a very keen interest in the programme, far surpassing the initial forecast.

UVPL is also participating in the development of a *maîtrise* (Master's) in chemistry, which began in September 2002, as well as a *licence* in physics for September 2003. Several other online and distance projects are currently being developed: a professional degree for mediators in cultural heritage; a university diploma and Master's in 'Literature diversity of languages and culture'; preparation for the Agrégation⁷ in physics and chemistry; laboratory coursework in preparation for the Certificat d'aptitude au professorat de l'enseignement du second degré (secondary school teaching certificate) in physics and chemistry; a law diploma giving access to a law degree course; a university diploma in fiscal procedures; and a Master's in 'Geography and public policies for sustainable development'.

For the most part, students can take these programmes by modules. What is more, a number of other modules have been developed to meet specific needs. For example, the UVPL portal will be offering a module concerning modelling and digital simulation for welding, and another module on data analysis and econometrics.

More than 2,000 students throughout the various universities and institutions comprising UVPL are currently following studies that are part of the open and distance learning programme.

⁷ Professional qualification for teachers in France; those who pass the competitive examination become *professeurs titulaires*.

5. Cooperation

Considering the complexity of problems to be dealt with when developing courses and programmes to be available on the Internet, isolated projects have no future; a serious and, most of all, sustainable provision is only possible with regional, national and international cooperation. The sharing of knowledge, experiences and objectives between institutions – often with very different statutes – is not only a source of mutual enrichment but also guarantees a more open education for a wider audience. This is true of the development of courses and programmes for both initial and continuing education.

It is clear that the potential audience targeted by distance learning has increased considerably with the development of the Internet. Connections are becoming more and more rapid and less expensive for the user. The learner, who no longer needs to be a computer expert, generally knows how to use these techniques, and the content development tools are becoming more and more user-friendly.

First and foremost, however, cooperation is necessary to meet the needs of isolated learners whose quest for distance learning requires courage, willpower and combativeness to see the programme of study through from beginning to end, at which point the student's work is validated by a final evaluation. From now on, the distance learner, who is a well-informed Internet user, will be confronted by a wealth of options. Apart from the prestige of the institution or the reputation of the teacher who is in charge of the course, it will be the quality of the services available, specifically educational assistance, which will make the difference. It is important to provide the human and material means that are necessary for ensuring this assistance, taking into account time differences and holiday periods, for example, so that a vital social link will be created, thus limiting the drop-out rate.

Whatever the size of the establishment – and in view of the number of students likely to enrol in online distance courses (a demand difficult to quantify) – existing staff resources cannot be expected to help each distance learning student on a regular basis. This is why UVPL has encouraged its member institutions to develop projects together in order to both accelerate the production of content and ensure faultless organization once the course is online, providing the support (tutorials, forum, chat and videoconference). That is essential if the student is to succeed. However, it is possible that a UVPL partner institution might already have formed close relations with one or several national or international establishments that are not part of UVPL. This does not in any way impede UVPL taking charge of the project, but in this case it is the responsibility of the UVPL institution to set up a suitable working arrangement with its partners.

If the target audience goes beyond the traditional client base of universities of the Pays de la Loire, some initiatives may need to seek partners outside of UVPL. An example of this is a project on industrial ownership that is currently being developed, which interests a wide audience of traditional students in a number of programmes of study, as well as companies seeking ways to better protect their industrial capital. Two of the partners for this project are the *Chambre régionale de commerce et d'industrie des Pays de la Loire* (regional chamber of commerce and industry) and the *Institut national de la propriété industrielle* (national institute for industrial ownership).

In general, UVPL accepts all partners of institutions that are members of the UVPL consortium, and even assists with calls for projects that are launched in other contexts (e.g. Campus numérique français). The needs expressed by individuals implementing projects, or their institutions, may also be reasons to support cooperation for the development of e-learning.

The development of distance learning confronts teachers with new difficulties that they have to solve. Good-quality distance teaching requires the use of new instructional approaches, a new division of tasks and different types of intervention, and the creation of tools that will allow distance learners to continually evaluate themselves or be assessed by their tutors. In order to do this, teachers can no longer work alone; they need to be able to benefit from a transfer of skills, and an exchange of experiences. They also need to be supported in their choices, have access to relevant training, and be aware of the changing technical alternatives that are available. The objective of any institution or group is to go beyond the personal initiative stage and commit itself to an institutional policy where each teacher can be responsible for his or her share in the development of these new teaching and learning tools. Cooperation optimizes means, especially in terms of human investment, and it avoids reinventing something that has already been done elsewhere.

It should be made clear that all the services, modules and resources that have been created with the help of this kind of cooperation will also benefit the students who are enrolled in traditional university programmes. This is another major objective of UVPL to be met.

6. Policy development, planning and management at UVPL: lessons learned and recommendations

The UVPL portal was opened to the public in September 2002. The site is continually updated and enhanced, with the academic calendar for enrolment in the UVPL partner establishments determining when items will be put online.

Looking back over the experience of three years, one can see that a certain number of conditions need to converge in order to achieve results in the development of open and distance learning courses, and achieve this in a context of shared resources and experiences.

- *Committed decision-makers:* Without a strong sustained commitment on the part of the top management of institutions, it is an illusion to believe that putting in place the approaches and tools described in this case would go beyond the stage of ‘passionate and intelligent tinkering’.
- *The provision of adequate budgets by UVPL partner institutions:* Those proposing and implementing projects need to have budgets that will enable them, when required, to find external help, and to create within the institutions technical positions that are indispensable for the implementation of distance education programmes and the follow-up of their students.
- *A legal structure:* A legal structure that can support a flexible and adaptable work environment, and a service that constitutes study, reflection and expertise available to all.
- *On-site ‘relay-stations’:* This support (logistics, advice, information exchange, help desk) is the essential link for accomplishing anything that will last. However, in order for these centres to be able to provide effective support and be appreciated by users, they need to be given authority by the President so that they become more efficient in their actions and really recognized by their peers.
- *Technical capability:* A lack in this area has often been noticed, especially in e-learning expertise. Technical support is essential in order for a team to work confidently, for implementing choices, ensuring the smooth operation and presentation of online courses and resources, and producing online information files on these courses and resources.
- *Sharing know-how:* Teams working in this area should be enhanced. For example, university summer sessions are a good way for people to meet and exchange information. They provide an opportunity for creating group dynamics and letting ‘people resources’ emerge who can ‘infect’ others with e-learning.

The implementation of this type of new organization and practices in UVPL is hampered by two major difficulties.

- *Institutional inertia:* This is the main obstacle to change. This phenomenon is present at both the national and international levels. Perhaps only universities that have been specifically created for distance learning can avoid it, and perhaps more recognition and better career opportunities might lessen this resistance.
- *Copyright management:* Copyright is difficult to regulate. In this area – particularly with regard to online content – legal concerns have not been clarified and much remains to be done. For the time being, in France and elsewhere, everybody applies formulas resulting from negotiations and local customs.

Finally, it must be noted that this analysis is obviously incomplete since the main audience of UVPL, the learners, have not given their opinion yet. Indeed, their point of view will only be known in the months to come, after a study has been conducted by research laboratories specialized in education sciences and e-learning expertise. However, learner reactions to programmes that are already in operation indicate an encouraging level of satisfaction.

7. Conclusion

The UVPL project would not exist without the direct involvement of politicians and, in particular, without a personal commitment at the highest level from the President of the Pays de la Loire region. The significant adaptability in the functioning of UVPL makes it possible for those responsible for projects from the various UVPL partner institutions not only to realize their projects, but also to give them proper exposure. UVPL must live up to the hopes of the individuals responsible for the projects and learners, for many of them have previously been disappointed by broken promises.

UVPL started working with a small core of partners limited to public university institutions simply because they face the common issues. However, as was mentioned earlier, UVPL is one of the missions of GIP Atlantech to which all of the higher education institutions of the Pays de la Loire region belong. Tomorrow, UVPL will open its doors to all higher education institutions, as it has already started to do by accepting them as partners in projects presented by one of the founding institutions of UVPL. Moreover, so as not to make understanding the state of e-learning in France any more difficult than it already is, UVPL has decided to clearly define its field of action. This means that UVPL will not repeat what already exists, unless this would bring real added value. Further, UVPL will develop in a cooperative manner, whether that cooperation originates with UVPL or others.

UVPL is eager to take an active part in the increase of the education provision of open and distance education and training programmes in French. It looks forward to offering all learners – whether distant or not – new services, such as tutorials and self-evaluation methods. It also hopes to provide new tools with which learners can build customized study programmes. In addition, UVPL seeks to develop for a broad audience – with the help of simple and user-friendly tools – not only the desire to learn, but also the methodology that will make it possible for independent learning to succeed, and be validated.

In other words, UVPL has chosen to take a pragmatic, rather than a conceptual, approach to distance education. It is a step-by-step approach based on implementing projects and learning from them, and sharing these lessons with others, all of which contributes to developing the dynamic of the UVPL initiative – now well under way – even further. It is essential to be patient, persuasive and responsive, for an e-learning approach cannot be imposed. Also, if e-learning is to develop, it is vital to take into account the experience gained elsewhere, which is exactly the intent of this publication.