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VIRTUAL MOBILITY AS AN ALTERNATIVE OR COMPLEMENT TO PHYSICAL MOBILITY

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Abstract

Internationalization has become one of the key issues in present day European Higher Education. For a large number of students though it is not possible to go abroad for social, financial or other reasons. One solution here can be provided through virtual mobility. In this paper we would like to present several European projects on Virtual Mobility. We will try to take a step back and look from a broader perspective, beyond project borders, for general conclusions, lessons learnt and future focus points regarding virtual mobility.

Keywords: virtual mobility, internationalization, project results

1 WHAT IS VIRTUAL MOBILITY?

Internationalization has become one of the key issues in present day European Higher Education.

In the academic year 2004-2005, 144.037 European students participated in the Erasmus exchange programme. The European Commission has set the goal in its 'Integrated Action Programme in Lifelong Learning' to increase the number of students taking part in the Erasmus Programme up to 3 million by 2011, which equals about 20% of all European students [1].

But where does that leave the other 80% of European students who don't have the possibility to participate in Erasmus for social, financial or other reasons? This is where the 'Virtual Mobility concept' steps in, by trying to offer a complement or alternative to traditional 'real' mobility programmes.

The elearningeuropa.info portal defines virtual mobility as: "The use of information and communication technologies (ICT) to obtain the same benefits as one would have with physical mobility but without the need to travel" [2]. This definition entails the basic assumption that virtual mobility should strive to copy physical mobility as much as possible.

Another more extensive definition of virtual mobility is given in the framework of the Being Mobile project: "Virtual Mobility is a form of learning which consists of virtual components through a fully ICT supported learning environment that includes cross-border collaboration with people from different backgrounds and cultures working and studying together, having, as its main purpose, the enhancement of intercultural understanding and the exchange of knowledge" [3]. In this definition virtual mobility is seen as a collaborative learning method, focusing on interculturality and knowledge exchange.

These different definitions show that 'virtual mobility', as a relatively new concept, is still a concept 'under development'. Based on our experiences in past and recent projects, we would like to re-think certain elements of the previously quoted definitions. Our basic assumption is that virtual mobility is something that is in essence different from physical mobility, although it can be used perfectly as a complement to or alternative for physical mobility.

We think of virtual mobility as a set of ICT-supported activities that realize cross-border, collaborative experiences in a context of teaching and/or learning. These activities can take place in a fully ICT supported learning environment or as a complement to physical mobility (before, during and after). They can be aimed at the (practical) organization of the learning process or they can consist of actual teaching and/or learning activities. Virtual Mobility activities can cross borders between regions,

countries, cultures and languages, but also between disciplines. Virtual mobility activities enable collaborative learning (i.e. learning from and with each other) and are always aimed at inter-cultural experiences.

2 PROJECTS ON VIRTUAL MOBILITY

Although the concept 'Virtual Mobility' is not yet widely-spread, the European Commission, as well as national agencies and individual institutions have actively promoted Virtual Mobility for some time, mainly through the financial support of projects within the SOCRATES/Minerva, the eLearning and Lifelong Learning Programme.

EuroPACE ivzw [4], a non-profit network organisation of higher education institutions, and AVNet (Audiovisual and New Educational Technologies and Networking) [5], a central service of the K.U.Leuven, are for instance very active in exploring Virtual Mobility through several EC-supported projects and other initiatives.

We would like to present in this paper the most recent European projects on Virtual Mobility in which EuroPACE ivzw and/or AVNet-K.U.Leuven play important part as coordinator or core member:

2.1 Move-IT [6]

The Move-IT project (Seminars Promoting Virtual Support for Mobile Students) wants to maximize the impact of physical mobility by raising awareness about the benefits of virtual and blended mobility. By organising seminars the Move-IT project will exchange the outcomes and results from previous projects in order to disseminate best-practices and to stimulate the implementation of virtual mobility in mainstream education. The project started in November 2009 and will run until the end of October 2010.

2.2 VM-BASE [7]

VM-BASE (Virtual Mobility Before and After Student Exchanges) aimed at enhancing the impact and efficiency of the Erasmus programme through the set-up of and support for a full-fledged Erasmus action. The focus in this project was more specifically on 'blended actions' where Virtual Mobility is used for both preparatory and return initiatives. VM-BASE supported students and teachers in coaching at a distance for both preparatory and return initiatives in blended format. This project ran from October 2006 until October 2008.

2.3 Being Mobile [8]

The Being Mobile project took place from November 2005 until December 2007. Being Mobile aimed to raise awareness amongst representatives from all teaching and training sectors about how European cooperation can be increased through Virtual Mobility. The project therefore managed targeted dissemination activities.

2.4 VENUS [9]

VENUS started its activities in March 2006 and continued until February 2008. VENUS internationalised prestigious courses, with international scope and importance, in each project member university through Virtual Mobility. The individual courses were open to both students and citizens and they focused on promoting European citizenship, collaboration and personal development. More concretely, two different models of international virtual seminars were implemented (a seminar series during the academic year and a one-week summer school) and evaluated on their sustainability.

2.5 REVE [10]

The REVE project (Real Virtual Erasmus) started in January 2005 and continued until December 2006. The project built further on the recommendations and guidelines proposed in an earlier project (cEVU) and more particularly aimed at enhancing the impact and efficiency of traditional Erasmus programmes through the set-up and support of mainstream Virtual Erasmus actions in the European Higher Education Area. The project's main output is the online 'Virtual Mobility Manual' that, by using

concrete examples of Virtual Erasmus courses, gives an overview of the possibilities on how to effectively integrate Virtual Erasmus and Virtual Mobility into courses and degree programs.

2.6 EPICS [11]

The EPICS project works towards mainstream provision of Virtual Mobility by offering international courses as an integral part of the university study programmes. The main objective is to work from Virtual Mobility projects towards a Virtual Erasmus programme. To institutionalise mainstream provision of Virtual Mobility the project will develop the supporting infrastructure of a European Portal for International Courses and Services (EPICS).

2.7 EU-VIP [12]

The EU-VIP project (Enterprise – University Virtual Placements) aims to enhance international work placements through the use of new technologies. EU-VIP started in October 2009 and will run until October 2011.

2.8 MOVINTER [13]

MOVINTER (Enhancing Virtual Mobility to foster institutional cooperation and internationalisation of curricula) aims to increase the cooperation and the structural link between Higher Education Institutions of Europe and Latin America through an in-depth exploration of the potential of ICT - and particularly Virtual Mobility - to internationalise curricula and learning experiences. MOVINTER runs from December 2008 to December 2010.

3 TYPES OF VIRTUAL MOBILITY

In the Being Mobile manual [14] four main types of virtual mobility are identified:

- a virtual course or seminar,
- a virtual study programme,
- a virtual work placement,
- virtual support activities to physical exchange.

We will use this typology to give an overview of the results achieved in the projects mentioned above.

3.1 Virtual Course or Seminar

During the VENUS project a phased model for setting up virtual activities was developed [15]. In a first phase the emphasis is on adequately defining goals. In the following phases (set-up, delivery and follow-up) the model distinguishes activities that create value for the initiative and those that enable the initiative. Taking this global model into account, the VENUS team implemented two different sub-models: virtual seminars and a virtual summer school. In both models a clear role division and planning beforehand is key to the success of the activity.

The partners of the REVE project [16] developed a typology of different possible virtual courses, based on the characteristics of the interaction between the partners when organizing these courses:

- The remote access interaction scenario: students from any number of consumer universities may participate in courses offered by a single provider university. Thus, the provider university coordinates registration (enrolment) of students, and delivers all teaching and assessment. After the decision of participating in a remote course, the involvement of the consumer universities is limited to local announcement of the course, local student enrolment, local student selection, and final registration of the students' grades.
- The Franchising interaction scenario: a course is provided by the Provider University to any number of consumer universities.
- The Coordinated Federation interaction scenario is a mix between remote access and franchised courses: a course is provided by the Provider University to any number of consumer universities, some of them providing no local support (i.e. remote access), others providing local support (i.e. franchising).

- The Joint Course Offering interaction scenario: a course is provided by the Provider University to any number of consumer universities, while each of the Consumer Universities provide local teaching support (i.e. franchising). Students interact mainly locally and less globally with peers from remote universities.
- The Course Adaptation interaction scenario: a course is provided by the Provider University to any number of consumer universities, while each of the Consumer Universities provides not only local teaching support (i.e. franchising) but also local adaptation of the learning material.

3.2 Virtual Study Programme

The EPICS project works towards a study on a full Virtual Erasmus programme, based on the knowledge collected in earlier Virtual Mobility projects (mainly focusing on separate Virtual Mobility activities). Special attention will be given to accessibility restricting factors as student admission, fee structures, assessment modes etc.

Dealing with legal frameworks and educational policies will also be an important focus of the MOVINTER project when looking at the internationalisation of curricula via Virtual Mobility.

3.3 Virtual Work Placement

Work placements can play an important role in the knowledge transfer between higher education institutions and the business community. In a global economy it is also becoming more and more important to introduce students to an international working environment during their education. When students go physically abroad for a work placement, preparation, coaching and follow-up of students is not always optimal. Furthermore, as we already stated above, there are also students who do not have the possibility to go abroad. The EU-VIP project wants to offer solutions to these problems by enhancing international work placements through Virtual Mobility.

The project is designing models and services for: 1) virtual mobility activities to prepare students for a stay abroad and to sustain the experience after they return; 2) fully virtual placements. Important issues here are networking (higher education – business), joint e-coaching, organisational socialisation, stimulating reflection and skills development.

3.4 Virtual Support Activities to Physical Exchange

The Move-IT project (Seminars Promoting Virtual Support for Mobile Students) wants to raise awareness about the benefits of virtual mobility as a complement to the existing exchange programmes in order to better prepare and follow-up students before, during and after the exchange. The main aim is to further disseminate the results of the VM-BASE project.

VM-BASE [17] mainly explored the concept of e-coaching. Particular attention was paid to supporting and coaching teachers and students at a distance, before, during and after a physical exchange. The project manual describes some of the key issues related to e-coaching. Getting involved in blended mobility actions changes the classic role of teachers and imposes new tasks and responsibilities in order to function as e-coaches. Different tools and electronic communication media have emerged in the last decades. They all can be used to support the coaching process from a distance.

During VM-BASE several pilot courses and cases were carried out. For the preparatory phase, pilots were developed in three areas: orientation guidelines, pre-selection tests and preparative courses. For the follow-up phase, the pilots aimed at the effective use of tools helping teachers in both the host and the home institution to evaluate and to assess a stay in another institution. Also the concept of a Virtual Alumni Association as a community of students and teachers who engaged in physical and virtual mobility activities was studied in depth.

4 KEY ISSUES

Topics that we can consider key issues when implementing virtual mobility are: the technology to be used, the pedagogical issues involved, organisation and planning, localisation, accreditation and credits, legal agreements and educational policies.

4.1 Technology

Tools and technologies that can be used to support virtual mobility are increasingly becoming larger in number and more diverse in their application. These tools are in general often categorised into two large categories:

- Synchronous tools (facilitating communication between users at the same time), e.g. chat, videoconferencing, webconferencing, audioconferencing...;
- Asynchronous tools (facilitating communication between users independent of time), e.g. e-mail, online discussion forums, eportfolio....

Following the experiences in the VM-BASE project [18], the consortium created a typology of tools, reflecting their specific use for e-coaching purposes. This categorisation is not considered to be exhaustive but contains the main tools used in this context. Tools that are distinguished are: reflective tools (e-portfolio, weblog), non-interactive tools (streaming media, informational website), collaborative tools (wiki, group blog, discussion forum), communication tools (e-mail, chat, video-, audio-, and webconferencing), and social networking tools (social networking, shared media, social bookmarking).

A successful use of these new technologies supposes that students and teachers are 'e-literate' or, at least, that they receive the necessary support in realizing these technological skills.

4.2 Pedagogy

Tools are of course only a means to an end. Every educational activity is ideally designed starting from the learning goals students need to achieve. The tools need to be chosen in function of these objectives.

Learning through or with support of new technologies, asks for a student-centred and active learning model in which students gradually take upon more responsibility with respect to the learning path and the role of the teacher becomes more and more that of a "guide on the side" (e-coach) [19].

Methods for collaborative learning (i.e. learning with and from each other) are very suitable to use in the framework of Virtual Mobility activities. These methods can also be used to help avoid isolation. As with regular teaching, social integration plays an important role in distance learning. Collaborative cross-border learning will also stimulate the development of intercultural skills, which we have identified as one of the key elements of virtual mobility.

In a lot of practical examples developed and tested in the different projects, virtual activities have been combined with face-to-face experiences [20]. The human factor always stands out as being one of the most important aspects and the success of activities often depended on whether or not the presence of a coach could be felt. Research has shown that face-to-face contact at some point or on some level is beneficial to the success of the activities, because it builds feelings of responsibility and trust. An important issue in case of fully virtual activities, is that new methods need to be found to realize this by using new technologies.

4.3 Planning [21]

All projects have shown that Virtual Mobility initiatives require a high level of organisation. Most of the disadvantages of Virtual Mobility have to do with organisational aspects.

A detailed planning and a clear distribution of roles should be made prior to the activity. A detailed planning is very important, not only for the activity to succeed, but also to prevent a lack of commitment or participation from one or more of the partners. A good planning can also avoid disappointment as well as clarifying and making explicit the objectives.

An important aspect of good planning is good timing: activities should begin and end about the same time in the different participating institutions because staggered timing is experienced as being quite disturbing. Attention should be paid to the academic calendars of the institutions. When studying abroad students move to the host country and adapt to the academic calendar of the host country. But when collaborating virtually - while staying in your home country - it is much harder to adapt to the academic calendar of the host country, not only for the students, but also for the teachers.

4.4 Localisation [22]

Virtual Mobility initiatives involve different (educational) institutions, each one with its own cultural background, language, pedagogy etc. The task of dealing with the issue of how to adapt to the cultural backgrounds involved is a complex one. This issue is referred to as the 'localisation'. The aim of localisation is to allow students from different locations to participate on equal terms in the same activities. The challenge lies in the fact to create a learning environment which allows for differences and at the same time makes a coherent learning experience possible. Two issues related strongly to localisation are language and culture

4.4.1 Language

One of the most important issues dealing with localisation might be the language, because it influences a lot of different aspects in the learning and cultural process.

In Europe, we are dealing with several different national languages, therefore language differences are the most obvious key issues when international students want to participate in virtual initiatives.

Seen from a teaching point of view there are three approaches to this:

- Teaching going on at the local language,
- everything is translated to a common language or
- everything is translated specific to the user's language.

All of these methods have benefits and disadvantages. The general recommendation is to be flexible and to allow different approaches with regard to the use of language.

4.4.2 Culture

When designing international courses, cultural differences show up in a variety of course aspects. Obviously there are the practical, organisational differences i.e. semester periods and working hours, but also behavioural differences should be taken into account.

The way students work individually and interact with each other in group assignments for instance, might differ in different countries. They can approach a course in a more competitive or a more collaborative way. More competitive students tend to keep information for themselves which might create a conflict when they are supposed to cooperate with each other. The way student deals with criticism or the way teachers give feedback also differs from one country to another.

4.5 Accreditation and credits [23]

The development of virtual learning technologies has the potential to facilitate more flexible curricula and new modes of study, which in turn may require new approaches to validating and accrediting learning.

4.5.1 ECTS (The European Credit Transfer System) [24]

The European Credit Transfer System (ECTS) is the most commonly used tool to facilitate the accreditation of student study in physical Erasmus exchanges. ECTS is a voluntary system which facilitates agreements between institutions and allows students to receive credit for courses that they successfully complete while on exchanges. The number of credits attributed to a course is based on student workload, including all elements – lectures, tutorials, practical work in laboratories and 'in the field', self-study and revision, assessments, etc. For example, the workload associated with an average student in a full year of undergraduate study is allocated 60 ECTS credits, even though the actual amount of work required of the student may vary from institution to institution. Courses or classes that are less than a full year in duration receive a proportionate number of ECTS credits.

The institutions involved in the exchange programme sign an agreement, based on the information about the study programmes and course structures that the students will be involved in. An agreement on the number of 'credits' which will be awarded by the awarding institution (on successful completion of the course) and which should be recognised by the student's home institution will be included.

It will be in everyone's interest that the procedures and agreements for Virtual Mobility are as close as possible to the ones for physical mobility. However, some problems arise here. The ECTS system for instance does not recognize and accredit the additional skills and competences that a student will have gained by taking part in a virtual exchange programme.

4.5.2 *The 'Tuning' approach* [25]

The framework developed by the project 'Tuning Educational Structures in Europe', is based on three cycles of qualification in higher education:

- The first cycle lasting at least three years and providing qualifications that are relevant to the labour market.
- The second cycle, commonly a 'Masters' degree entered after successful completion of a first cycle degree, with no minimum length of study.
- The third cycle degree – a doctoral qualification.

As countries and institutions seek to align themselves with the Bologna Declaration, a structure based around 3 year first cycle degree plus 2 years second-cycle degree is becoming increasingly prevalent across Europe

For each of nine subject areas used in the initial phases of the project (Business, Chemistry, Earth Sciences, Education, European Studies, History, Mathematics, Nursing and Physics) an approach was developed which allowed institutions to 'tune their curricula without losing autonomy'.

Unlike the ECTS, which uses student workload to align courses, the Tuning framework uses a number of approaches to help make course curricula compatible:

- Generic competencies
- Subject specific competencies
- ECTS as a credit accumulation system. ECTS was originally conceived as a credit transfer system, but Tuning proposes that it becomes a credit accumulation system, an absolute rather than a relative system based on learning outcomes instead of student workload.
- 4. Approaches to learning, teaching and assessment
- The quality assurance of teaching, learning, assessment and evaluation. By taking a broader approach than ECTS the Tuning framework looks at outcomes (competencies and quality) as well as inputs (student workload). The framework then describes a series of learning outcomes (both generic and subject-specific) that learners should have achieved at various points in first and second cycle degrees.

4.5.3 *Quality assurance*

Whether using the ECTS approach or the Tuning Methodology, how can institutions be assured of the quality of teaching and learning in other institutions when they enter into joint teaching or exchange agreements and agree to allocate certain credits for students undertaking exchanges?

It is of course possible to trust on peer relationships in formal or informal partnerships at an individual or institutional level. The EUA (European University Association) has taken the lead in introducing a general approach for quality assurance in European Higher Education [26]. It distinguishes three levels in quality assurance on a European level:

- Enhancing quality on institutional level,
- Enhancing external accountability procedures on national level,
- Promoting the development of a European dimension for quality assurance.

4.6 **Legal agreements and educational policies** [27]

The need for a legal framework – comparable with the real ERASMUS – is felt by most actors involved in Virtual Mobility activities. Physical ERASMUS has been made possible thanks to the establishment of several agreements between European universities: these are general agreements involving the whole institution or bilateral ones between two departments.

At the moment, many of the virtual exchanges happening in Higher Education institutions found their origin in personal contacts of the teaching staff taking part. It would, however, be better to look for broader solutions and even work on a European level. True student mobility requires more comprehensive frameworks, similar to those in existence for the Erasmus programme.

Other problems can occur because of national regulations. Some countries in Europe still have legislation in place which prevents the official recognition of qualifications gained by distance learning, and in many countries they are regarded as inferior qualifications.

5 CONCLUSION

The Virtual Mobility activities that were conducted in the framework of the projects described in this paper were mainly pilot projects. In a next phase should be aimed to integrate Virtual Mobility in regular, 'mainstream' educational activities. This creates the need for new competences at individual and organisational level. Individuals will need to be able to adapt flexibly to a rapidly changing and highly interconnected world. Organisations will need to develop a culture to foster growth in competences. In order to realize this new culture we need to network and collaborate with others, both at the individual and the organizational level.

REFERENCES

- [1] European Commission, DG Education and Culture. *Erasmus student mobility 2004/2005*
- [2] See 'Virtual Mobility' at the 'elearningeuropa.info' portal <<http://www.elearningeuropa.info>>
- [3] Bijmens, H. et al (eds.) *European Cooperation in Education through Virtual Mobility: a Best-Practice Manual*. Heverlee, 26
- [4] Website EuroPACE ivzw <<http://www.europace.org/>>
- [5] Website AVNet <<http://www.avnet.kuleuven.be/>>
- [6] Project website <<http://move-it.europace.org/>>
- [7] Project website <<http://vm-base.europace.org/>>
- [8] Project website <<http://www.being-mobile.net/>>
- [9] Project website <<http://www.venus-project.net/>>
- [10] Project website <<http://reve.europace.org/>>
- [11] Project website <<http://www.eadtu.nl/epics/>>
- [12] Project website <<http://euvip.eu/>>
- [13] Project website <<http://www.movinter.eu/>>
- [14] Bijmens, H. et al (eds.) *European Cooperation in Education through Virtual Mobility: a Best-Practice Manual*. Heverlee, 29-34
- [15] Venus Project. *Virtual Seminars. Creating New Opportunities for Universities*. Heverlee, 44-54
- [16] Reve Project. *Virtual Mobility Manual* <<http://reve.europace.org/>>
- [17] Bijmens, K. et al (eds.) *Home & Away. Coaching Exchange Students From a Distance*. Heverlee
- [18] Idem, 50-70
- [19] Bijmens, H. et al (eds.) *European Cooperation in Education through Virtual Mobility: a Best-Practice Manual*. Heverlee, 107
- [20] See for instance the pilot projects described in Bijmens, K.

[21] Bijmens, H. et al (eds.) *European Cooperation in Education through Virtual Mobility: a Best-Practice Manual*. Heverlee, 102-103

[22] Reve Project. *Virtual Mobility Manual* [<http://reve.europace.org/>]

[23] Idem

[24] <http://ec.europa.eu/education/lifelong-learning-policy/doc48_en.htm>

[25] The Tuning Project <<http://tuning.unideusto.org/tuningeu>>

[26] <<http://www.eua.be/eua-work-and-policy-area/quality-assurance/>>

[27] Reve Project. *Virtual Mobility Manual* [<http://reve.europace.org/>] and Bijmens, H. et al (eds.) *European Cooperation in Education through Virtual Mobility: a Best-Practice Manual*. Heverlee