
Victorious Project



http://www.coimbra-group.be/12_victorious.htm

Victorious Desk Research Study

Digital Repositories Working Group

Physical or Virtual Mobility of European Exchange Students

Document Notes

Author	Angela Joyce (Bristol) Cesare Zanca (Siena) Aune Valk (Tartu)
Date	August 2005 – January 2006
Version	1.0

Executive Summary

The aim of this desk research was to investigate physical and virtual mobility of ERASMUS and other European exchange students, with special regard to usage of digital repositories, i.e. experiences of incoming exchange students, but also to a lesser extent outgoing students. The geographical area covered was the UK, Italy and Estonia, i.e. the home countries of the three Digital Repositories partners in the Victorious project. Some cross-Europe initiatives on virtual mobility were also identified.

EU policy is driving most European activity in higher education, specifically the Bologna Process and The European Research Area, which both have “mobility” as a key action area.

The major organisations engaged in surveying exchange students or formulating policy were identified and descriptions of each were given, covering the scope of their work.

These organisations have produced various interesting reports on *general* experiences of exchange students but little data specifically relating to *virtual* mobility. Material from these reports was summarised. The EADTU (European Association of Distance Learning Universities) has a Task Force that is looking into virtual mobility. The EU’s Livius Project is developing European virtual knowledge networks. The sheer variation in higher education provision across the EU, and the challenge of harmonising systems and addressing mobility issues, was evident from these reports.

The question of mobility was then explored from another angle – the provision of digital repositories in the UK, Italian and Estonian Higher Education areas. Again,

key organisations and initiatives were identified. . A number of projects are underway in each country, but none revealed any research on the *specific* problems faced by students involved in physical or virtual mobility programmes.

Future trends in student mobility and digital repository access were then considered. In the UK, for example, ERASMUS exchange students are declining in numbers. But as mobility is such a high priority across the EU, it will continue to be promoted, with perhaps more emphasis on virtual exchanges or collaboration, rather than actual visits to other countries. Research on digital repositories is very active, and the international aspect will no doubt increase in importance.

To conclude, this research has identified a certain amount of research on virtual mobility for European exchange students. It has pinpointed some key organisations and projects underway in the area of digital repositories. There is great interest in distance and e-learning. If these initiatives could be combined, the outcomes could be very useful.

Contents

1.	Introduction	5
2.	European Union Policy.....	5
2.1	Bologna Process	5
2.2	European Research Area (ERA).....	7
3.	Major Organisations and Information Sources.....	7
3.1	European Organisations.....	7
3.1.1	ESIB The National Unions of Students in Europe	7
3.1.2	The European University Association (EUA).....	7
3.1.3	Erasmus Student Network	7
3.1.4	EuroPACE.....	8
3.2	Italian Organisations.....	8
3.2.1	The Italian Socrates Agency, (Agenzia Socrates Italia).....	8
3.2.2	The Conference of the Rectors of Italian Universities, (CRUI).....	8
3.2.3	The Italian Ministry of Education University and Research, (MIUR).....	8
3.2.4	The Information Centre on Mobility and Academic Equivalences, (CIMEA)	8
3.2.5	Caffè ERASMUS.....	9
3.3	Estonian Organisations	9
3.3.1	Archimedes Foundation	9
3.3.2	Centre for Academic Mobility	9
3.4	UK Organisations	9
3.4.1	The UK Socrates-Erasmus Council	9
3.4.2	The Europe Unit.....	10
4.	Current Research.....	10
4.1	Trends 1V: European Universities implementing Bologna.....	10
4.2	Bologna with Student Eyes.....	10
4.3	Erasmus Student Network survey	11
4.4	EADTU Task Force Virtual Mobility.....	11
4.5	The LIVIUS project (Learning in Virtual Integrated University system).....	11
4.6	International Student Mobility	12
5.	Digital Repositories	12
5.1	UK.....	12

5.1.1	JISC's Digital Repositories Programme.....	13
5.2	Italy	15
5.3	Estonia.....	17
6.	Future Developments	17
6.1	Trends in future mobility of UK exchange students.....	18
6.2	Future mobility of incoming ERASMUS students.....	18
6.3	Digital repositories initiatives	18
6.4	eContent <i>plus</i> programme	18
6.5	ICT in Higher Education	18
7.	Conclusion.....	19
	Appendices.....	20
A.	Research Methodology	20
B.	References.....	20
C.	Reports	23
D.	Contact Details.....	23

• Introduction

The aim of this report is to present findings on the current state of physical and virtual mobility of European exchange students visiting the UK, Italy and Estonia. Outgoing students are also briefly considered. These three countries are partners in the Digital Repositories Working Group of the Victorious project.

In this report, the following key questions will be asked: how is EU policy shaping student mobility in these countries? What are the barriers to mobility? What future trends can be identified? How are digital repositories being managed in these countries and what research is being conducted on access?

How do we define “mobility”? In the report, International Student Mobility (Sussex Centre for Migration Research, 2004), “mobility” is defined as “any form of international mobility which takes place within a student’s programme of study in higher education”. But virtual mobility is a narrower term which was nicely defined in the document “Victorious: Detailed Project Description” (not online at time of writing) as “mechanisms... to enable permissions for use to follow the learners and their enrolments rather than their location or affiliation.” It must be pointed out “virtual mobility” is not a well-recognised term and all organisations approached for this research needed clarification!

In many ways it is difficult to confine the concept of mobility to the UK, Italy or Estonia. By its very nature, virtual mobility can cut across national boundaries. For example, academics can deposit their papers in internationally available archives like Economics Bulletin <http://www.economicsbulletin.com/> thereby increasing the visibility of their work. For this reason, although the emphasis is on UK/Italian/Estonian support for virtual mobility, some important organisations listed in the report are Europe-wide in scope.

It must be emphasised that there is very little published research on virtual mobility in any of the three countries, and that therefore only extracts from research on more general mobility can be mentioned. There is a need to follow this up, perhaps with some type of large-scale student and staff survey. The organisations and projects listed may well provide some future contacts for this activity and indeed some expressed interest in this research.

• European Union Policy

• Bologna Process

Much of the European activity in higher education is being driven by EU policy, more specifically The Bologna Process. The Bologna Declaration was “a pledge by 29 countries to reform the structures of their higher education systems in a convergent way”. 45 countries now belong (August 2005).

<http://europa.eu.int/comm/education/policies/educ/bologna/bologna.pdf>

This is a highly important piece of EU policy, which involves six actions. See: The Bologna Process, 2005:

http://europa.eu.int/comm/education/policies/educ/bologna/bologna_en.html

These actions are quoted from the above document:

- “A system of academic grades which are **easy to read and compare**, including the introduction of the diploma supplement (designed to improve international “transparency” and facilitate academic and professional recognition of qualifications);
- A system essentially based on **two cycles**: a first cycle geared to the employment market and lasting at least three years and a second cycle (Master) conditional upon the completion of the first cycle;
- A system of **accumulation and transfer of credits** (of the ECTS type already used successfully under Socrates-Erasmus);
- **Mobility** of students, teachers and researchers;
- Cooperation with regard to **quality assurance**;
- The **European dimension** of higher education.”

Ministers meet periodically to review the process and the latest meeting was in Bergen 2005. Bologna has now reached half time. They are committed to creating a European Higher Education Area by 2010. Mobility was confirmed as one of the key objectives of the Process – see the Bergen Communiqué.

Much of the research identified in this report refers to the Bologna Process. It underpins all European exchange activity and looks likely to influence it strongly. It will be discussed further in Section 4.

In order to support and develop the Bologna process at a national level, in 2004 the EC initiated a process to set up Bologna promoters teams in 46 countries. The UK website for Bologna promoters is available at http://www.europeunit.ac.uk/bologna_process/uk_bologna_promoters.cfm. The Italian website is available at <http://www.bolognaprocess.it/>.

UK’s Bologna Secretariat Website:

<http://www.dfes.gov.uk/bologna/>

The UK, as President of the European Commission during the second half of 2005, has taken over responsibility for this Secretariat. The full name is Secretariat to The Bologna Follow Up Group. They provide news and updates about the ongoing Bologna Process.

[aune1]Another piece of EU policy that is influential in higher education is the **Lisbon Strategy**, launched in 2000. In fact the Bologna Process fits into this broader policy. An update can be found at:

http://europa.eu.int/growthandjobs/index_en.htm

Key areas of this ambitious strategy include a stronger internal market, investing in research and development, and creating an adaptable workforce. Reforming education is seen as a key part of this process.



- **European Research Area (ERA)**

http://europa.eu.int/comm/research/era/index_en.html

ERA is unifying EU support for coordination of research activities. One such activity is “mobility and training”, which is currently covered under the EU’s Sixth Framework Programme (FP6). FP6 has put emphasis on researcher mobility. A network of European mobility centres has been set up, including one in the UK. This covers mobility in the broadest sense, i.e. work permits, taxation, social security and intellectual property rights. The UK Presidency of the EU held a conference in London from 8-9 September 2005, considering issues for European researchers, and it included one workshop on general mobility.

- **Major Organisations and Information Sources**

- **European Organisations**

There are number of European organisations that provide information on student mobility. A few of them are listed below.

- **ESIB The National Unions of Students in Europe**

<http://www.esib.org/>

This is an umbrella organisation of 44 national student unions, which aims to represent their social, economic and cultural interests at a European level. It is not specifically a UK organisation, however they publish documents that may be of interest in this research. In May 2005 they published the report **Bologna with Student Eyes**, a comparative survey of higher education in the Bologna Process member countries. Some information from the survey touches on mobility issues and will be discussed in Section 4.

- **The European University Association (EUA)**

<http://www.eua.be/>

This is a Europe-wide research organisation, based in Belgium. Some of their research again covers mobility issues (although not specifically on IT issues). Their report Trends 1V: European Universities implementing Bologna considers mobility in terms of degree recognition, language barriers and conflicting academic calendars.

- **Erasmus Student Network**

<http://www.esn.org/>

This organisation is run by students for students, to develop and support student exchanges. It is Europe-wide. The emphasis of their work is personal and social integration.

In Summer 2005 they conducted a survey on student experiences while on Erasmus exchanges. The results were due in October 2005. This includes areas like reasons for exchanging and future mobility, and therefore could be relevant for this research.

- **EuroPACE**

<http://www.europace.org/>

EuroPACE is a trans-European network of universities and their partners in education and training, i.e. private enterprises, regional and professional organisations and public authorities.

Approximately 60 member organisations (45 of them universities) participate in this network throughout Europe. EuroPACE's specific fields of interest are Virtual Mobility, Networked e-learning, Internationalisation, Knowledge creation and sharing, and Lifelong Learning.

In addition to European organisations we bring examples from three countries on national level information sources on student mobility

- **Italian Organisations**

The major organisations and institutions dealing with exchange students' programmes and the Bologna process in Italy are:

- **The Italian Socrates Agency, (Agenzia Socrates Italia)**

<http://www.bdp.it/socrates/>

The Agency promotes, gives information and is responsible for the management of the applications for the main European programmes (Comenius, Erasmus, Grundtvig, Lingua, Minerva, Observation & Innovation, Information and Communication Technologies (TIC), Joint Actions and Accompanying Measures). The agency also runs a website with specific information about the Bologna Project: <http://www.bolognaprocess.it/>

- **The Conference of the Rectors of Italian Universities, (CRUI)**

<http://www.crui.it/>

CRUI has very active and updated sections dedicated to:

- Mobility (<http://www.crui.it/europa/link/?ID=662>)
- Internationalization (<http://www.crui.it/Internazionalizzazione/?Arg=176>)

- **The Italian Ministry of Education University and Research, (MIUR)**

<http://www.MIUR.it/>

MUIR has published a website called **Study in Italy** (<http://www.study-in-italy.it/>) which provides details on the Italian University system and information about study opportunities and life conditions for international students. It hosts a "course search" function that enables students to find out information on all degree courses of the 1st and 2nd cycle (undergraduate and postgraduate) offered by Italian universities.

- **The Information Centre on Mobility and Academic Equivalences, (CIMEA)**

<http://www.cimea.it>

CIMEA is the Italian centre within the NARIC network (National Academic Recognition Information Centres). It operates on the basis of an agreement between MIUR and the Rui Foundation. Its main purposes are:

- to give information to individuals on the opportunities and procedures for the recognition of foreign study qualifications
 - to provide advice to institutions on the comparability of foreign qualifications to the end of their recognition
 - to promote the free movement of EU citizens with particular reference to student international mobility information service
- **Caffè ERASMUS**

<http://www.cafferasmus.it/>

Caffè ERASMUS gives Erasmus students in Italy the possibility to join forums, chats and other online facilities and provides information about University life in Italy, cultural events etc.

- **Estonian Organisations**
- **Archimedes Foundation**

<http://www.archimedes.ee/english/>

Archimedes Foundation is an independent body established by the Estonian government in 1997 with the objective to coordinate and implement different EU programmes and projects in the field of training, education, research, technological development and innovation.

- **Centre for Academic Mobility**

<http://www.smartestonia.ee/>

Centre for Academic Mobility is a subunit of Archimedes Foundation that aims to develop mobility and provide information on different aspects of students', researchers', teachers' and trainees' mobility.

- **UK Organisations**

Several major UK organisations were identified which conduct research or offer support to European exchange students:

- **The UK Socrates-Erasmus Council**

<http://www.erasmus.ac.uk/>

This is the national agency for the Erasmus programme in the UK and manages the distribution of grants to UK higher education institutions. It holds workshops and conferences, and in addition produces a variety of publications on promoting Erasmus. The Council was contacted and stated that they did not have any research findings on virtual mobility, but that they would be very interested in any outcomes from this Victorious Project research. They have however produced an

interesting report called **International Student Mobility** (2004), which will be discussed in Section 4.

- **The Europe Unit**

<http://www.europeunit.ac.uk/home/>

This UK organisation was launched in 2004 and aims to raise awareness of European issues which may affect UK higher education.

They were unable to provide any information but were very helpful in pointing out other possible information sources. They suspect that there is no current material on virtual mobility.

- **Current Research**

Various organisations were approached or their Websites were scrutinised for relevant research output on physical or virtual mobility in the Europe. Some material was found on *general* mobility, but almost nothing on virtual mobility with reference to digital repositories.

- **Trends 1V: European Universities implementing Bologna**

This report was produced by The European University Association (EUA).

http://www.eua.be/eua/jsp/en/upload/TrendsIV_FINAL.1117012084971.pdf

This report provides Europe-wide analysis of universities' responses to the Bologna reforms. It involved visits to 62 university sites and gives a snapshot view of progress. There is a small section called "Mobility of Students" (page 22-23), under the broad heading Recognition. They quote from the Berlin Communiqué 2003, "Mobility of students and academic and administrative staff is the basis for establishing a European Higher Area. Ministers emphasise its importance for academic and cultural as well as political, social and economics spheres (...) and agree to undertake the necessary steps to improve the quality and coverage of statistical data on student mobility". They found variation in levels of mobility, with some countries including the UK expressing concern at low outgoing numbers. There was also concern at the introduction of a two-cycle structure in degrees, which may make exchanges more difficult, as there would be less time to take a year abroad.

- **Bologna with Student Eyes**

This is a report from ESIB (The National Unions of Students in Europe). This report assesses Bologna half way through the process (2005). There is interesting detail on various issues, including the varying level of student participation in quality assurance and decision-making across the EU, but nothing significant on virtual mobility.

<http://www.esib.org/documents/ESIBbolognaanalis.pdf>

- **Erasmus Student Network survey**

The survey considers the whole student experience while on an exchange; one section of the survey asked about future mobility plans. ESN emailed to state that the results will be published in October 2005 and that they will supply a report.

- **EADTU Task Force Virtual Mobility**

<http://www.eadtu.nl/>

It was decided in the Rectors' meeting of October 2003 to construct a Task Force on virtual mobility that investigates the characteristics, opportunities, favourable conditions and barriers of virtual mobility. The working group will develop an operational framework for virtual mobility that is based on bilateral co-operations between the universities (programme and institutional level).

Read more on the "e-move" project proposal that was submitted end of June last (<http://www.eadtu.nl/>).

More information on the website of e-learning Europa (http://www.elearningeuropa.info/extras/pdf/virtual_models.pdf)

- **The LIVIUS project (Learning in Virtual Integrated University system)**

http://www.uninettuno.it/livius/Inq/home_livius.htm

This is a European project coordinated by the Italian Virtual University Nettuno which aims to supply appropriate answers to the needs identified in the action plan for e-Learning "Defining Tomorrow's Education". These aim to develop in Europe knowledge virtual networks that make use of the Internet and the new technologies to enhance the quality of learning, making the access to resources and to services easier, to promote cooperation and the exchange of knowledge and information.

The project has the following general objectives:

- Create a new organizational and didactic and psycho-pedagogical model of European Virtual Association of Universities – EVA of Universities) which originates from consortium of traditional universities and technological business companies of many European countries structured as network;
- Develop cooperation among the partners in order to design didactic paths and common academic curricula that allow the acknowledgement of titles at a European level, according to the Sorbonne (25th May 1998) and Bologna (19th June 1999) declarations;
- Transfer knowledge by means of the new technologies;
- Innovate teaching and learning methods and favour the rapid exchange of information and data;
- Answer the need for flexibility whilst avoiding student isolation by matching presence with distance, therefore maintaining direct interaction amongst the students and between students and professors (both face-to-face and at distance);

- Update the roles of the student and of the teacher who will have to design learning scenarios, learn new languages, learn how to teach using television and Internet, using the new technologies;
- Design a European Curriculum in Computer Science Engineering and Telecommunication Engineering.
- Produce 2 pilot modules of 20 hours of video lessons, each one in four different languages (English, French, Spanish and Italian) in Computer Science Engineering and Telecommunication Engineering that will be broadcast on the two NETTUNO satellite channels, RAINETTUNOSAT1 and RAINETTUNOSAT2, and on a technological didactic platform on the Internet projected specifically by satellite.

- **International Student Mobility**

The report **International Student Mobility** (2004) was commissioned by HEFCE and other organisations including the UK Socrates Erasmus Council. It examines international mobility available to UK students and identifies current trends. It was produced after concerns about falling rates of UK student participation in European exchanges, and fears that this could eventually put the UK at a competitive disadvantage in the global economy.

http://www.hefce.ac.uk/pubs/hefce/2004/04_30/

The report emphasised that UK mobility is a complex issue and there are no simple answers as to why exchange patterns are altering. The UK's historical position in the world is complex in terms of relations with other countries, e.g. there are links to the Commonwealth, other-ex colonies, and the EU. The UK student population is also becoming more diverse due to immigration.

No mention was made of virtual mobility in the report and neither was information technology provision discussed.

However, some interesting observations were made on physical mobility and on barriers to it. The survey bore out the belief that foreign language learning is declining in popularity with UK students and that many prefer to exchange with Anglophone countries. Numbers of incoming ERASMUS exchange students to the UK are now twice the outward flow. Many UK students now prefer to have *work* placements abroad, instead of studying.

The report concluded that there were various barriers to student motivation and mobility – reluctance to learn foreign languages, financial constraints, institutional constraints (rigid degree structures except for language degrees), and actual student attitudes. However, perceived benefits were still great and most students who had exchanged found it rewarding.

- **Digital Repositories**

- **UK**

Bearing in mind the lack of data on virtual interoperability from key UK organisations involved in higher education and European initiatives, it was decided to approach the question from another angle and look at digital repositories initiatives in the UK.

There is a wide range of interest in digital repositories in the UK and a large number of activities are underway.

A key organisation in the UK is **The Joint Information Systems Committee (JISC)**.

<http://www.jisc.ac.uk/index.cfm?name=home>

JISC “supports further and higher education by providing strategic guidance, advice and opportunities to use Information and Communications Technology (ICT) to support teaching, learning, research and administration.” JISC is very active in researching digital repositories and funding new initiatives.

In its report **Digital Repositories Review** (2005), JISC defines digital repositories as possessing the following characteristics:

- “Content is deposited in a repository, whether by the content creator, owner or third party
- The repository architecture manages content as well as metadata
- The repository offers a minimum set of basic services, e.g. put, get, search, access control
- The repository must provide open access to its metadata for harvesting”

The report gives a good overview of the situation in the UK; it is beyond the scope of this report to give details. Significant comments on the UK situation are that there is a shortage of staff with the relevant skills, that the joining up of content and services is still at an early stage, and that in some areas development is uneven and immature. Different stakeholders are involved – librarians, students, lecturers and technical staff, often with varying needs and cultural backgrounds.

- **JISC’s Digital Repositories Programme**

http://www.jisc.ac.uk/index.cfm?name=programme_digital_repositories

This brings together people and practices from across various domains (research, learning, information services, institutional policy, management and administration, records management, and so on) to ensure coordination in the development of digital repositories, in terms of their technical and social (including business) aspects. A variety of projects are running at present. To date, much institutional repository work has been aimed at research outputs, but JISC is encouraging further work with the development of learning materials and data.

JISC acknowledges the importance of activities at EU level, like the Bologna Process and European Research Area, in relation to digital repositories and open access (Helen Hayes, JISC Briefing Paper, 2005).

JISC’s **Focus on Access to Institutional Resources (FAIR)** Programme comes under the umbrella of the above Digital Repositories Programme.

http://www.jisc.ac.uk/index.cfm?name=programme_fair

It was inspired by the Open Archives Initiative and is examining how the increasing body of digital materials produced by Higher and Further Education institutions could be made more accessible to the wider community.

<http://www.openarchives.org/>

FAIR encompasses a number of projects. Some of these consider broader issues like management, evolution and usage – these include DAEDALUS, Electronic Theses, and Theses Alive!. Each has its own Web page. DAEDALUS is based at Glasgow University and is establishing some Open Digital Collections that will allow members of Glasgow and (*significantly*) beyond to deposit and access scholarly output.

A phone conversation with Rachel Bruce, the FAIR project management, confirmed that there is no research on virtual mobility of European exchange students within FAIR however.

A useful future resource may be JISC's **UK Digital Curation Centre** (a working resource for librarians).

<http://www.dcc.ac.uk/>

The Centre is looking at best practice for the storage, management and preservation of digital information, which will enhance its use and reuse over time. As ever more vast amounts of data are produced, it is vital to plan for good management and change. It is interested in international as well as national good practice, particularly in the socio-economic and legal context.

JISC is a sponsor of **SPARC Europe**, an alliance of European research libraries, library organisations, and research institutions. It is not confined to the UK, but is Europe-wide.

<http://www.sparceurope.org/index.html>

SPARC aims to exploit new technology and new business models, to better service the information needs of researchers, universities, and society. It encourages partnerships between academics, libraries, societies and responsible publishers. SPARC is involved in promoting open access repositories. A big part of its work is advocacy and it publishes leaflets on new systems of scholarly communication, including the Create Change UK Brochure:

http://www.sparceurope.org/resources/SPARC_brochure.pdf

It could be said that, in encouraging the creation of more open access of scholarly publications, and by fostering international co-operation, SPARC is supporting researchers' mobility and the promotion of their research. For example, it promotes self-archiving, where scholars can deposit their refereed journal articles in open electronic archives. Their work can be viewed internationally without the need for them to travel themselves. This also increases the visibility and prestige of their institutions.

No material was found specifically on European exchange students and their usage of digital repositories. Questions that should perhaps be asked in future are:

- What are the main types of digital repositories in UK universities and how can incoming students access these?
- Which barriers could there be:
 - Language (can all speak good enough English?)

- Password access (is it usually confined to a single institution?)
- Learning styles (are students from other countries confident enough to use digital repositories independently, or do they need more directed training and guidance?)
- Will cross-European repositories be set up? Who should manage or finance these?

There are some other potentially interesting organisations, e.g. data providers, in the UK, but time constraints meant that these could not be investigated.

- **Italy**

In Italy there is no main organization devoted to the promotion of the use and sharing of digital repositories equivalent to JISC in UK. The Italian member of SPARC Europe is CASPUR, but several other institutions are currently operating simultaneously and with specific areas of influence with the objective of promoting and coordinating the interoperability and improvement of e-learning and digital resources (mainly digital libraries and virtual museums) in Italy. None of them, though, seems to have addressed their attention to the specific problems implied by the use of such resources by students involved in physical or virtual mobility programmes.

The main organisations and institutions in this context are:

The Conference of the Rectors of Italian Universities, (Conferenza dei Rettori delle Università Italiane – CRUI)

<http://www.cruai.it/>

CRUI has a section dedicated to e-learning (<http://www.fondazionecruai.it/e-learning/>) and a commission on Open Access to University archives (<http://www.cruai.it/link/?ID=1811>). CRUI also has a commission working on university libraries (<http://www.cruai.it/link/?ID=1811>) and has organized a seminar that led to “The Italian Declaration supporting the Berling Declaration on Open Access to Knowledge in Sciences and Humanities”, a document undersigned by many Italian University Rectors in 2004 (<http://www.aepic.it/conf/viewappendix.php?id=49&ap=1&cf=1>).

The Italian Ministry for Innovation and Technologies (MIT)

<http://www.innovazione.gov.it/eng/index.shtml>

MIT hosts sections on e-Content and accessibility with information about the work of special commissions, Italian laws and guidelines, a white paper on accessibility, reports on the structure and the development of e-Content services in Italy, etc.

CILEA, (Consorzio Interuniversitario Lombardo per la Elaborazione Automatica)

<http://www.cilea.it/>

CILEA provides Information and Communication Technology services on behalf of universities and related organizations, public organizations and enterprises. It offers several services aimed at scientific users and libraries, for single institutions and for cooperative projects. CILEA also offers the management of library automation

systems, even within the context of the Servizio Bibliotecario Nazionale (National Library Service), and of archive automation systems and digitising.

In 1998 CILEA launched the CILEA Digital Library (CDL) project (<http://cdl.cilea.it/>) and the Virtual Library (<http://www.virtual-library.it/>), to give Internet access to scientific literature and digital contents of interest for research and development activities. The CDL service allows consultation on Internet specialised databases and full-text articles from thousands of magazines. A relevant part of this data is housed permanently on CILEA servers (about 10 TeraBytes of data) in order to guarantee the archiving and the conservation.

CASPUR (Inter-University Consortium for the Application of Super-Computing for Universities and Research)

<http://www.caspur.it/>

CASPUR is an inter-university computing Consortium financed by MIUR (the Ministry for Education, Universities and Research) and by associated Universities.

It is available to the national university and research network and to MIUR, with the aim of spreading the culture of information and communication technology, along with promoting their applications. It is involved in national projects trying to share digital resources (e.g. the “Libraries in the Schools” project).

SBN (National Library Service)

<http://www.sbn.it/>

SBN is the Italian libraries network promoted by the General Direction for Library Heritage and Cultural Institutes in cooperation with the Regions and the Universities, with the coordination of the Central Institute for the Union Catalogue of Italian Libraries and for Bibliographic Information (**ICCU**, <http://www.iccu.sbn.it/Ehomepag.htm>). Participating in the SBN project are state, university, academies, local bodies, and public and private institutions libraries. SBN is a network that aims at providing services to the end-users. The target is to get over the fragmentation of the librarian structures to offer a national service based on the management of a general on-line catalogue and on the sharing of resources to make accessible and available the documents. The Libraries participating in SBN are organized in Nodes distributed throughout the national territory, connected to a central system. SBN is a free service, available 24 hours a day

I-Museum onlus

<http://www.i-museum.it/>

A non-profit association aimed at the diffusion of the WorldWideMetaMuseum project as a tool that enables museum networks and supports museum-school-university integration for educational and scientific purposes. It operates through geographic and thematic Area Projects developed in partnership with museums, educational institutions, and local government bodies. It dedicates particular attention to giving access to digitized materials to disabled people and has been recognized as a Competence Centre from the European network MINERVA (<http://www.minervaeurope.org/>).

AIB (Association of Italian Libraries)

<http://www.aib.it>

With the collaboration of the Italian Ministry of Education University and Research, MIUR coordinates a special commission on the integration of the University Libraries (<http://www.aib.it/aib/commiss/cnur/sbu.htm>).

ICCD (The Institute for Cataloguing and Documentation)

ICCD promotes and coordinates cataloguing operations, is in charge of diffusion and standardization of cataloguing methods. It carries out these activities through:

- Development of cataloguing methodologies;
- Development of control and validation utilities;
- Construction and management of General Information System of architectural, artistic, archaeological and ethnographic heritage;
- Development of cultural projects in cooperation with national and international institutions.

It hosts a special section on methods and standard for the selection and description of cultural heritage aimed at creating a General Catalogue and has been recognized as a Competence Centre from the European network MINERVA (<http://www.minervaeurope.org/>)

ASSINFORM

The Italian ICT companies association and its commission for Multimedia contents ANEE (<http://www.anee.it/>) publish an annual research report on e-learning in Italy. In 2005 ANEE has published two special issues on e-learning in the Italian University and school system (<http://www.anee.it/eventi/default.asp>).

- **Estonia**

In Estonia joint activities in e-learning are made under **Estonian e-University** (<http://www.e-uni.ee>) that includes 8 higher education institutions among its members. Estonian e-University is leading the projects of the joint universities' courses' database as well as a database for learning objects.

One of the projects of Estonian e-University **UNIVE** made a study of existing course and learning object-data bases, including case-studies on Ariadne, The Finnish Virtual University Online Courses Database, Opintoluotsi, Nettuno, Cupido. The results of the study can be found at <http://www.e-uni.ee/Minerva/1tn.html>.

Libraries are obviously huge repositories of digital information <http://www.utlib.ee/ee/ester.html>. Tartu University library introduced a concept of the e-library few years ago that besides many other things includes also journals, databases, PhD theses of the University of Tartu, digital books and a digital archive of library materials.

• **Future Developments**

Some likely future developments in mobility and digital repository access can be identified from the above findings:

- **Trends in future mobility of UK exchange students**

Numbers of UK outgoing ERASMUS students will probably continue to fall, due to a decline in foreign language study and the expansion of exchanges to Anglophone countries, e.g. USA and Australia.

- **Future mobility of incoming ERASMUS students**

Numbers could fall, if the Bologna Process action point 2 is implemented, i.e. Introduction of a three year first degree, as this would leave less time for an exchange year.

On the other hand, mobility is seen as a key issue by the Bologna Process signatories and as part of the European Research Area. The UK is also committed to a global economy. It is highly likely that EU and national policy will drive forward initiatives to encourage mobility, but perhaps with more flexibility than ERASMUS. E.g. virtual exchanges where students or researchers stay in their home country but collaborate online.

- **Digital repositories initiatives**

In the UK, there are a huge and growing number of services and development projects underway. Some have an international perspective and access issues for non-UK students and researchers will have to be addressed.

- **eContentplus programme**

http://europa.eu.int/information_society/activities/econtentplus/index_en.htm

More attention will be turned to e-content in coming years. On 9 March 2005 the European Parliament and the Council approved the eContentplus Programme, a multiannual Community programme to make digital content in Europe more accessible, usable and exploitable.

The eContentplus programme will support the development of multi-lingual content for innovative, on-line services across the EU.

The 4-year programme (2005–08), proposed by the European Commission, will have a budget of €149 million to tackle organisational barriers and promote take up of leading-edge technical solutions to improve accessibility and usability of digital material in a multilingual environment.

- **ICT in Higher Education**

The study “Models of Technology and Change In Higher Education: An international comparative survey on the current and future use of ICT in Higher Education” Collis, B. en M. van der Wende (eds.) <http://www.utwente.nl/cheps/documenten/ictrapport.pdf> foresees wide but slow changes in ICT-usage in higher education institutions, mainly towards blended learning. The same is foreseen in CHEPS Scenarios; The European higher education and research landscape 2020 (CHEPS Team, Enschede, CHEPS, University of Twente, 2004, 91 p.) <http://www.utwente.nl/cheps/documenten/lustrumscenarios2020.pdf>.

• Conclusion

Some research is already underway in the UK, Italy and Estonia, regarding activities of European exchange students and researchers. But importantly, little research was identified which *only* concentrates on virtual mobility of exchange students.

There are various cross-EU projects on general mobility. It is likely that the Bologna Process will drive developments forward. The EU's Sixth Framework Programme has put an emphasis on researcher mobility.

There is also a large amount of research and development being carried out on digital repositories, across the EU. There is an interest in distance and e-learning, with several initiatives underway.

A co-ordinated effort to converge these areas of research would be very useful. Various national or Europe-wide organisations, services and expertise are already up and running. Several of these have expressed interest in the Victorious research, and they could perhaps be approached in the near future for collaboration. [aune2]



Appendices

A. Research Methodology

UK:

- Research was carried out from the office at ILRT, University of Bristol, UK. The Internet was the major resource. Nationally known reputable gateways such as SOSIG (Social Science Information Gateway) were used. Key Web sites were identified, such as JISC, Europa and UK Erasmus-Socrates Council. These offered links to other Web sites. Google was searched using keywords.
- Some key organisations were contacted by email or telephone to ask further questions. This was fruitful in terms of finding useful reports and learning about other organisations. Several organisations expressed interest in this research and would like to know the outcomes.
- Work contacts were asked for help, at ILRT Bristol University, across the university and across the SOSIG service.

Italy:

- Mainly Websites were used.
- Various people were called by telephone to check up the information and expand the research.

B. References

Estonia:

- Archimedes Foundation
<http://www.archimedes.ee/english/>
- CHEPS Scenarios; The European higher education and research landscape 2020 (CHEPS Team, *Enschede, CHEPS, University of Twente, 2004, 91 p.*)
<http://www.utwente.nl/cheps/documenten/lustrumscenarios2020.pdf>.
- Centre for Academic Mobility
- EContentplusprogramme
http://europa.eu.int/information_society/activities/econtentplus/index_en.htm
- <http://www.smartestonia.ee/>
- Estonian e-University
www.e-uni.ee
- “Models of Technology and Change In Higher Education : An international comparative survey on the current and future use of ICT in Higher Education” Collis, B. en M. van der Wende (eds.)
<http://www.utwente.nl/cheps/documenten/ictrapport.pdf>

- Tartu University library ESTER project
<http://www.utlib.ee/ee/ester.html>
- UNIVe
<http://www.e-uni.ee/Minerva/1tn.html>

UK:

Books:

- Hussey, Jill and Hussey, Roger: Business Research, (Macmillan, 1997)

Websites:

- Activities of the European Union: Education, Training, Youth
http://europa.eu.int/pol/educ/index_en.htm
- Bergen Communiqué
http://www.bologna-bergen2005.no/Docs/00-Main_doc/050520_Bergen_Communique.pdf
- The Bologna Declaration
<http://europa.eu.int/comm/education/policies/educ/bologna/bologna.pdf>
- elearningeuropa.info
<http://www.elearningeuropa.info/>
- ELearning Programme
http://europa.eu.int/comm/education/programmes/elearning/programme_en.html
- Erasmus Student Network
<http://www.esn.org/>
- Europa Website
<http://europa.eu.int/>
- Eurodesk
<http://www.eurodesk.org/new/index.asp>
- Europe Unit
<http://www.europeunit.ac.uk/home/>
- European Information, University of Exeter Library
<http://www.library.ex.ac.uk/internet/eurostudies.html#education>
- Eurydice
<http://www.eurydice.org/>
- Index to Theses
<http://www.theses.com/>
- National Unions of Students in Europe
<http://www.esib.org/>

- The Social Science Information Gateway (SOSIG)
<http://www.sosig.ac.uk/>
- UK Socrates-Erasmus Council
<http://www.erasmus.ac.uk/>
- UK's Bologna Secretariat website
<http://www.dfes.gov.uk/bologna/>

Italy:

- Agenzia Socrates Italia
<http://www.bdp.it/socrates/>
- AIB (Association of Italian Libraries)
<http://www.aib.it>
- ASSINFORM
<http://www.assinform.it/>
- Caffè ERASMUS
<http://www.caffeerasmus.it/>
- CASPUR (Inter-University Consortium for the Application of Super-Computing for Universities and Research)
<http://www.caspur.it/>
- CILEA, (Consorzio Interuniversitario Lombardo per la Elaborazione Automatica)
<http://www.cilea.it/>
- The Information Centre on Mobility and Academic Equivalences
<http://www.cimea.it>
- The Conference of the Rectors of Italian Universities
<http://www.cru.it/>
- EADTU Task Force Virtual Mobility
<http://www.eadtu.nl/>
- The Italian Ministry of Education University and Research (MIUR)
<http://www.MIUR.it/>
- Il Processo di Bologna
<http://www.bolognaprocess.it/>
- I-Museum onlus
<http://www.i-museum.it/>
- The Italian Ministry for Innovation and Technologies (MIT)
<http://www.innovazione.gov.it/eng/index.shtml>
- The LIVIUS. Project (Learning in Virtual Integrated University systems)
http://www.uninettuno.it/livius/Inq/home_livius.htm

- SBN (National Library Service)
<http://www.sbn.it/>

C. Reports

- Conference of European Ministers Responsible for Higher Education, Bergen Communiqué: The European Higher Education Area – Achieving the Goals (Bergen 2005).
http://www.bologna-bergen2005.no/Docs/00-Main_doc/050520_Bergen_Communique.pdf
- ESIB (The National Unions of Students in Europe): Bologna with Student Eyes, (ESIB, 2005)
<http://www.esib.org/documents/ESIBbolognaanalsis.pdf>
- European University Association: Trends 1V: European Universities implementing Bologna, (EUA, 2005)
http://www.eua.be/eua/jsp/en/upload/TrendsIV_FINAL.1117012084971.pdf
- Hayes, Helen: JISC Briefing Paper, August 2005 (JISC, 2005)
http://www.jisc.ac.uk/uploaded_documents/HE_repositories_briefing_paper_2005.pdf
- Heery, Rachel; Anderson, Sheila: Digital Repositories Review, (UKOLN) 2005-08-23
http://www.jisc.ac.uk/uploaded_documents/digital-repositories-review-2005.pdf
- International Student Mobility (Sussex Centre for Migration Research and The Centre for Applied Population Research, University of Dundee). 2004
http://www.hefce.ac.uk/pubs/hefce/2004/04_30/

D. Contact Details

- Angela Joyce
angela.joyce@bristol.ac.uk
- Cesare Zanca
zanca@unisi.it
- Aune Valk
aune.valk@ut.ee

[aune1]Should I add similar paragraph about Estonia?

[aune2]This part should be more general, not just UK specific.