EXECUTIVE SUMMARY

European Higher Education is changing. New technologies are offering new opportunities for learning, teaching and research, and these opportunities are being grasped by staff and students in the oldest as well as the newest universities. The political and spatial context in which universities operate is changing too. The European Higher Education Area, the Bologna Process, pressure to commit effort to the Europe 2010 agenda, and a global education 'marketplace' all require universities to be more outward looking, more involved in partnerships and collaborations, more responsive to stakeholder needs.

One challenge to be addressed is the steady rise in mobility of students. This comes in more than one form. Students are now moving physically more than ever to take courses in universities in other countries, supported in part by schemes such as Erasmus, which has ambitious targets for expansion. Students are also studying in a more place-independent mode, using the web, email, internet phones etc to get access to learning materials, staff and peers, and doing this from a widening range of locations. This mobile study is still mostly blended with traditional classes on campuses, but the beginnings can be seen of 'virtual mobility' in which students take courses and immerse themselves digitally in another university environment, and this is expected to increase towards a more substantial Virtual Erasmus Programme.

Questions therefore arise about the degree to which European students are using digital technologies to support physical mobility, and to what extent universities are prepared for this shift in student behaviour with its indication of large-scale virtual mobility to come.

In a partnership of nine traditional universities and one university network, we carried out an investigation of current practice in European universities, to find some answers to these questions. We addressed the period before, during and after the visits.

- interviews and surveys of students who were, or had recently been, undertaking study visits to other universities as part of their degree programmes;

- a survey of European universities about their provision of digital services for their own students whilst away and for incoming students;

- pilots and tests of options for universities as to how best to address some of the issues that arose from the information gathering exercises;

- case studies in our own universities of changing student needs and how we are addressing these.

Our findings about students

Our European students were mostly young adults from 32 countries, almost 400 universities, and studying a wide range of subjects. Many, but not all, were in the Erasmus Programme, and their visits were generally for a few months, up to one year. These findings are similar to those of others. All of the students used digital technologies (ICT, mobile devices etc) routinely for social and academic purposes, and expected to find good quality information on websites about the university they intended to visit. They came from universities which varied in use of technology, some provided very deeply integrated services online (portals, matriculation, exams, virtual learning environments, e-journals, databases etc) and others provided much lower levels of digital service, and particularly much less integrated services (single password vs. multiple passwords for example). We have termed this change in digital academic environment 'digital culture shock', and offer some tools to aid thinking about how best to manage it.

Although the majority of students enjoyed their visits, they often had to employ resourcefulness to ensure continued access to digital services they need, such as email. These involved methods such as using the digital services of their home university, especially library and email; internet cafes to overcome limited PCs or network and sharing passwords when there were long delays in issuing these. In general, information provision was weak. It was hard to find, often in the local language only, which is problematic when the subject is technical, and there was insufficient focus on the needs of the visiting students. Peer support is vital, and many students leave their normal support network behind when they go to study.

Our student respondents painted a picture of significant variation in ICT provision by universities across Europe, but also variations in effectiveness of use, and some real lack of 'joined-up' services. This appeared to be university-specific rather than country-specific.

Our findings about universities

An increasing number of universities seem to be moving to online access prior to arrival, essential when information is locked away behind authentication barriers. However, many did not yet offer this to their own or visiting students, and it appeared that these sorts of business processes lagged behind academic processes in terms of their integration of ICT. Even in universities where much was already digital, libraries particularly appeared to still require physical presence for issue of cards/logins.

Most university International Relations Offices considered that they had good websites or pointed to good information elsewhere (for example IT Services or Libraries), although this is not a view borne out by our student data, and in interviews with us, staff in support services did agree that they were not very aware of the issues of digital services for incoming or outgoing students.

In general, support services rated their services to incoming students more highly than those for outgoing students, perhaps because there is an 'out of sight, out of mind' aspect, but also because there is an assumption from the traditional visits that the only services students need are the ones at their host university. This ignores the needs of students to access learning materials, emails, etc from their home university whilst away.

A minority of universities are developing virtual mobility options at present, but a majority are aware of this emerging field and are considering their way ahead.

Our conclusions at the end of the research

Much is changing, but much remains to be done, even for the European physical mobility students of today. Many of these changes would be to the benefit of all students of the university.

The implications for large-scale virtual mobility are significant. Many universities need to significantly upgrade their information provision in content and organisation if students are to be able to understand the provision that will be made for them in services and support. Students who never set foot on the physical campus will not be able to go to notice-boards or ask peers in face-to-face classes. Without ability to join the university online and be issued with the necessary login and password they are effectively cut off from the university system. The increasingly-digital libraries will need to join in this endeavour, and probably rethink some of their views on licensing.

Recommendations for stakeholders

Some actions are **for universities** themselves to resolve. Providing good information and making it easy to find is a soluble problem for all universities. It needs an oversight mechanism to make it integrated information. Better use should be made of technology for essential business services, such as matriculation and course choice, and alongside that, better integration of the services that do exist, e.g. single passwords efficiently administered. For some universities there needs to be greater clarity about what the university provides and what it expects students to provide. It is clear that outgoing students need some form of training and support, so that they are prepared for mobile study. Many have travelled and used the internet, but this is not the same as studying at another university. For incoming students training and support at the outset (induction) so that they understand how to get the best from the facilities and systems. These actions will require joint efforts from senior management, from International Relations Office, from the Student Record Office, from Libraries, IT and eLearning Services, and from Faculties, Schools and their staff involved with students undertaking visits.

Some actions are **for European, national and regional agencies**. At the present time there is no effective database of courses and so students must draw help from their university and/or search for themselves for suitable visit locations. A system of single digital identity for all students (and staff) would greatly facilitate movement between universities and access to legitimate digital resources. Systems exist for this (e.g. Shibboleth) but implementation requires high level action. Access to the internet was one common problem for mobile students. The embryonic wireless 'roaming' service EDUROAM offers one way to reduce these barriers. Universities should be encouraged strongly to participate in such international schemes, with assistance as necessary.

Some actions are **for students and their associations**. Students need to become more wide-thinking in their planning for a visit, and consider what difficulties might arise in studying in another university in another country. The student associations can help them in this by providing websites that offer advice, perhaps enable students to share experiences and solutions, and by pressing universities and educational agencies to consider more robustly the needs of mobile students. Student associations will also need to consider their role in supporting virtually mobile students, in terms of knowing who and where they are, what their needs are and how to cope with students who 'belong' to more than one university simultaneously.