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BOLOGNA AND THE CHALLENGES OF E-LEARNING AND DISTANCE EDUCATION

THE CONTRIBUTION OF NON-CLASSICAL LEARNING AND TEACHING FORMS

TO THE EMERGING EUROPEAN HIGHER EDUCATION AREA

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BACKGROUND PAPER

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Introduction

The Bologna Declaration of 1999 as signed by Ministers of Education from 29 countries one year after the Sorbonne intention declaration, initiated a process that is comparable to the waves on the surface of a pond in which a stone has been thrown. It created a concentric expanding movement, which still mobilises a growing engagement that pushes its momentum. The impressive intermediate results of the process can be found in various documents[1].

The action lines that have been set out, six in the original Bologna Declaration but extended in the meantime to ten[2], are relatively broad and their discussion has been focusing on specific issues while leaving others often nearly unmentioned. Typical examples can be found in the discussion of action lines 4 (Promotion of mobility) and 7 (Lifelong Learning). "Virtual mobility", although recognised as a valuable add-on to physical mobility, is hardly worked out in the available reports, while the lifelong learning discussion concentrated mainly on aspects of recognition and credit systems, in line with what is stated in the *Berlin Communiqué*: "*Ministers furthermore call those working on qualification frameworks for the European Higher Education Area to encompass the wide range of flexible learning*

[1] http://www.bologna-bergen2005.no/

[2] Bologna 1999
1. Adoption of a system of easily readable and comparable degrees;
2. Adoption of a system essentially based on two cycles;
3. Establishment of a system of credits;
4. Promotion of mobility;
5. Promotion of European co-operation in quality assurance;
6. Promotion of the European dimension in higher education;

Prague 2001
7. Lifelong learning;
8. Higher education institutions and students;
9. Promoting the attractiveness of the European Higher Education Area (EHEA);

Berlin 2003
10. Doctoral studies and the synergy between the EHEA and the ERA (European Research Area).

paths, opportunities and techniques and to make appropriate use of the ECTS credits. They stress the need to improve opportunities for all citizens, in accordance with their aspirations and abilities to follow the lifelong learning paths into and within higher education."

In fact, reading these reports leave the impression that Ministers and main actors involved in the Bologna process are aware of the benefits and even necessity of lifelong learning, distance education, e-learning, informal and non-formal learning, but that at the same time they often had/have the traditional teaching settings and typical generation audiences of higher education in mind while working out the action lines. The already mentioned quotation of the Berlin Communiqué is illustrative for this attitude: developed actions and frameworks should "*encompass*" (read: *be open, applicable to*) "alternative" teaching environments and learner audiences. The danger exists that in this approach some elements that are distinct for the "alternative" environments and target audiences get insufficient attention or, even worse, are overlooked in the process. Knowing the importance of the alternative environments and audiences for Europe's future and their strategic value, not only for typical distance teaching institutions but even for conventional ones, time has come to put lifelong learning, virtual education and e-learning in the centre of focus and to use this perspective for questioning whether all elements necessary to make the Bologna process successful are in place in its actual (intermediate) results and/or further planning.

These general considerations are the background for more targeted ones in what follows. They are grouped into four themes, corresponding with the topics of the seminar's working groups:

1. Lifelong learning and the mainstream;
2. Quality assurance and the emerging qualification framework for the EHEA;
3. Virtual and physical mobility; and
4. Opening up higher education to the larger society.

These four topics are clearly interrelated. It is strongly suggested that participants of the seminar read the full document, to avoid that aspects, which are (more extensively) mentioned under the heading of another working group but that have also validity for the own topic, be omitted in the discussion.

Lifelong learning and mainstream education

Open universities have been founded to provide "second chance" education to mature students. Although their initial objective was to combat social exclusion (to use this contemporary term), quite soon it was found that the "second way" (learning at the distance) which they offered was at least as important, and not only attractive for those who were unable to follow classes in conventional institutions. Continuing education turned into lifelong learning.

The development of specific distance teaching materials is however time consuming and needs extensive human and financial resources, as is the learner support during delivery of courses and programmes. Most conventional universities were consequently not interested in distance teaching, neither for their regular study offer nor for their continuing education. Their adoption of e-learning as a complement to ("blended learning") or (partly) in exchange of traditional teaching changed however the situation as it initiated (a kind of) distance education for on campus students. Outside, but also within institutions it has been thought that the mere existence of e-learning materials and tools for e-learning delivery and learner support, developed for the on campus student, could be sufficient to create a distance education offer that would attract lifelong learners. In that perspective it was only about ten years ago optimistically believed that up to 40 % of the 2005-2010 student population of conventional universities would be mature students. Today we may wonder why this prognosis turned out to be unrealistic: had it to do with the quality of the prognosis itself, with attitudes in higher education towards lifelong learning and lifelong learners, or with the attitudes of mature people towards conventional institutions?

The experience of open universities demonstrates the necessity of having an educational offer that really takes care of the mature learner needs (needs driven instead of offer driven). e-Learning can clearly support many of these needs as it enables individualisation of the offer, community building through support for communication and collaboration, independence of time and place of learning, open learning environments, access to an almost unlimited range of learning resources, learner controlled learning, etc. However, this does not imply that the same contents and programmes can be used without adaptation for on campus and distance (mature) learners. Mature learners have a more critical and pragmatic approach to learning and instruction than generation students. Generation students go to higher education to earn a degree; a large part of the mature students study to update and reskill. They therefore prefer courses that provide direct useful information fitting into their existing knowledge, skills and experiences. Modularisation of the courses and programmes in connection to certification at module level may be vital, as is certification that can be assembled to a recognized degree.

The cumulative offer of conventional higher education is in the perspective of lifelong learning clearly larger than the one of open universities. Higher distance education, which is often perceived as a necessity in order to involve all potential lifelong learners in higher education, should consequently include traditional mainstream higher education.

Key questions in this respect are:

- ***Is mainstream education fit to serve (all) lifelong learners, and serve them optimally?***
- ***What is (eventually) precisely missing at the level of:***
    - ***Access to higher education for lifelong learners;***
    - ***Attitudes from staff, conventional students and mature students;***
    - ***Teaching and learning materials (courses, programmes);***
    - ***Organisation of course delivery and learner support (technical, pedagogical, organisational);***
    - ***Legislation (e.g. modularisation, recognition, funding of lifelong learners);***
    - ***Other issues…***
- ***What about networking between conventional higher education and dedicated distance education institutions in this perspective? Could private-public partnerships be helpful?***
- ***What recommendations can be made in addition to the ones that were already formulated earlier (see Zgaga 2003[3], Annexes, p. 65 et sqq, i.a. conclusions of Prague seminar on lifelong learning).***

Quality assurance and the emerging qualification frameworks for the EHEA

Quality assurance systems originate from business environments, which need quality certification for branding purposes. Characteristic for these systems is their use of rather *formal* criteria (standards) for quality evaluation. They check in other words primarily whether functions are defined, processes documented, tasks appointed to specific persons, product maintenance scheduled, etc. than analysing at a deep level the functions, processes and tasks themselves, with as ultimate criterion the customer satisfaction. Several attempts to adapt these systems and their quality standards for educational and training purposes have been made, but were critically received in educational institutions as the customer satisfaction criterion is spontaneously perceived as not applicable to education and the approach with formal criteria conflicts with the academic tradition of putting *contents* and *processes* in the centre of focus for quality evaluation (e.g. rather looking to relation of content with state of the art research findings, logical coherence of a curriculum, scientific evidence for didactic approaches). Editorial Boards, which use peer reviewing to evaluate the quality of

[3] Zgaga,P. (2003) Bologna Process between Prague and Berlin http://www.bologna-bergen2005.no/PDF/00-Main_doc/0309ZGAGA.PDF

submissions for publication in important scientific journals were the example for the quality evaluation of higher education institutions through peer reviews on the occasion of evaluation visits, preceded by a self-study of the institution and followed by a published ranking.

The original Bologna Declaration of 1999 identified the "promotion of European cooperation in quality assurance, with a view to developing comparable criteria and methodologies" as one of the core areas; and in the recent 2003 Berlin communiqué the Ministers of Education commit themselves to support further development of quality assurance at institutional, national and European level. But at the same time, they repeat that "The primary responsibility for quality assurance in higher education lies with each institution itself and this provides the basis for real accountability of the academic system within the national quality framework."
According to the Berlin Communiqué, by 2005 national quality assurance systems should include:

- A definition of the responsibilities of the bodies and institutions involved;
- Evaluation of programmes or institutions, including internal assessment, external review, participation of students and the publication of results;
- A system of accreditation, certification or comparable procedures;
- International participation, co-operation and networking.

The Ministers of Education recognise in other words the academic tradition of quality assurance, connect it to accreditation and international co-operation and networking. However, there is no reference to the specific situation of distance education and lifelong learning. There have been in the past nevertheless typical approaches for distance education[4] and e-learning[5]. These have tried to pay sufficient attention to the distance learning pedagogy and didactics, the technical aspects that are inherent to e-learning for learners studying at home, the specific demands connected to the counselling and learning support of distance learners, to the non-classical formats of its student assessment and the security aspects that are connected to technology use for registration, communication and evaluation. Quality assurance is again at stake within the e-learning initiative of the European Commission, which funds amongst others projects that aim at the development of quality assurance frameworks[6]. With the increasing activity of conventional higher education institutions on the distance learning market, and the shift from traditional teaching to blended learning that is taking place, it will be necessary that these quality assurance frameworks cover on campus teaching as well as distance teaching and learning in one comprehensive system.

The Ministers of Education include international participation, co-operation and networking into their idea of quality assurance systems, but put at the same time the responsibility for quality assurance with the institutions in the framework of *national* quality assurance systems. It should be questioned whether this double option is not creating conflicts that might hinder the full deployment of the EHEA. If international collaboration in higher education is considered as beneficial for conventional institutions, it is more and more experienced as a necessity for distance education in general and virtual instruction in particular, not at least to spread the high costs of course and programme development and delivery (including learner support) and to create critical masses to make the operation cost beneficial. Networks introduce however a new factor in quality assurance, as systems where designed so far for single entity evaluation. Networks pay services, by taking over tasks of separate institutions (e.g. in joint course development), by organising course sharing and exchange with eventually joint certification as a consequence, by stimulating virtual student and staff mobility.

Key questions that should be put are:

[4] e.g. the British Quality Assurance Agency's Distance Learning Guidelines (http://www.qaa.ac.uk/public/dlg/guidelin.htm) and Quality Standards of the Norwegian Association of Distance Education (http://www.nettskolen.com/pub/artikkel.xsql?artid=122) and its more recent revision (2001 - only in Norvegian): Kvalitetsnormer for Fjernundervisning)
[5] e.g. the Caliber-Net project guide (http://www.caliber-net.odl.org/htdocs/outcomes/guide) and the Benchmarking approach for virtual campuses (http://www.benvic.odl.org/indexpr.html)
[6] e.g. SEEQUEL (http://www.education-observatories.org/seequel/index) and EQO (http://www.eqo.info/)

- ***What are the challenges for international recognition? How can these challenges be tackled?***
- ***Can the quality of e-learning and distance education be assured with the same frameworks, models, systems and standards that provide quality assurance and accreditation for conventional higher education?***
- ***What pressure is put on quality assurance and accreditation models and systems by the international networks and their services in which higher education is increasingly engaging?***
- ***What should/can be the effect of private-public partnerships on quality assurance and accreditation models for higher education?***
- ***Are the models of quality assurance and accreditation that have been developed for higher education in the past few years adequate to face these new challenges? If these need adaptation, in what way?***
- ***What recommendations can be made in addition to the ones that were already formulated earlier (see Zgaga 2003[7], Annexes, p. 65 et sqq.).***

Virtual and physical mobility

Virtual mobility may serve various purposes or functions.
A first series is connected to physical mobility:

- It can replace physical mobility for those unable to physically participate in "real mobility" (for reasons of e.g. physical handicaps, necessity to combine professional life with study, the cost of the mobility in combination with the limits of mobility funding);
- It can prepare physical mobility by enabling students to virtually attend support courses and preparation activities that are unavailable at their home university;
- It may enable follow-up courses and activities for physical mobility when students have returned to their home institutions;
- It offers the possibility to virtually attend courses in the home institution while being abroad.

The second shows virtual instruction as a value in its own:

- Exchange of courses, enabling students to follow courses through e-learning in another higher education institution as part of their programme at home (e.g. as elective courses or in exchange of a similar course of the home institution but chosen for its specific approach);
- Sharing of courses (joint courses that eventually lead to joint degrees).

Each of these functions has implications on recognition, especially when recognition implies not only the acceptance of credits but also of evaluation marks by the other university in the mobility scheme. The situation is comparable to the recognition of awarded credits in the student mobility scheme, for which purpose ECTS[8] has been developed, refined (ECTS+) and adopted by all actors involved. However, ECTS is primarily oriented towards academic recognition, and therefore based on the study load of a particular subject in the yearly workload within a degree programme. Since mature students are as well (and maybe even in first instance) interested in professional recognition of their study, recognition should rather or at least also be based on the competences that are acquired through the study. TUNING[9] provides a competence-based framework, which is still under (further) development; part of which is precisely aimed at bringing it in line with ECTS.

[7] Zgaga,P. (2003) Bologna Process between Prague and Berlin http://www.bologna-bergen2005.no/PDF/00-Main_doc/0309ZGAGA.PDF
[8] http://europa.eu.int/comm/education/socrates/ects.html; http://europa.eu.int/comm/education/socrates/ectsfea.html http://www.unige.ch/eua/En/Publications/HE%20texts/diploma%20suppl.pdf
[9] http://www.relint.deusto.es/TUNINGProject/index.htm

Opposite however to physical mobility, courses are on mobility in virtual mobility schemes instead of students. “Course mobility” demonstrates even better than student mobility the close ties between recognition and pedagogy (pedagogical objectives, concepts, methods, evaluation), culture (language, cultural embedding and disciplinary/scientific or professional cultures), and especially (the perception and assurance of) quality.

Learners, and especially mature learners, can and will “shop” for relevant courses in various higher education institutions, as virtual mobility enables “direct” (be it virtual) contact with top experts that are not around in the institutions of the own country, or “attendance” of courses that are not offered in local institutions. A consequence is that joint directories or portal sites will be needed (like the directory of the on-line universities on the European Commission’s elearning portal[10]) to inform students about the possibilities. The interest of mature students in separate courses (apart from degree programmes) may also imply that a portfolio approach should be considered to define acquired competences or/and even enable the awarding of degrees.

A specific recognition issue is linked to joint degrees. These are set up in the collaboration between institutions in which all students follow successive parts of their education. Students attend in most of the existing examples through physical mobility (part of) the courses in each participating university (a semester/year), sometimes parts are also virtually followed; while often e-learning tools are used for student support and student collaboration for assignments and papers. Whether a joint degree is awarded may have to do with legal restrictions or strategic/political concerns (e.g. having a degree from a well known university as a reference for the labour market).

As reported in his article “The Virtual University is… the University Made Concrete?”, Cornford found evidence to state that technology initiatives in conventional universities generate pressures for the establishment of a far more ‘corporate’ form of organisation with more explicit and formalised policies, goals, roles, identities, rules and operating procedures.[11] Evidence is also found in the outcomes of several elearning initiative projects[12] and in the considerations mentioned above. Although the EHEA concept is generic for all higher education, regardless the characteristics of its target audiences and education delivery formats, the fact is that it is primarily being developed with the campus situation and the study career of the generation student in mind. Therefore it seems necessary that the EHEA is supplemented with a E*virt*HEA: a European *virtual* Higher Education Area, that focuses on the specificity of virtual instruction and learning, and pays explicit attention to the specific demands of lifelong (and distant) learners. Both EHEA and EvirtHEA should have the same objectives, similar structures and instruments, even their working scenarios may be largely identical; but their focus (and locus) of attention should remain specific.

Key questions for this section are:

- ***How do we get the most out of virtual mobility as a support for physical mobility as well as a value in its own?***
    - ***Physical mobility became successful after structuring and funding it in the framework of the EC’s Erasmus programme. Are similar actions needed for virtual mobility?***
    - ***Should virtual mobility be restricted to Europe or embedded in a kind of “Erasmus mundus 2” (enabling also virtual mobility of European citizens to higher education offers outside Europe), and if so, what would be consequences of such choice?***
    - ***How to structure virtual mobility in the institutions? Extend the tasks of Erasmus co-ordinators or create new co-ordinators for virtual Erasmus? What services should be put in place to support the co-ordinators?***

[10] http://www.elearningeuropa.info/
[11] http://www.ncl.ac.uk/curds/vuniv/JCLA.pdf
[12] e.g. cEVU (http://www.cevu.org) and Menu (http://munin.hsh.no/lu/inf/menu/)

- ***What special considerations have to be made to virtual mobility in the context of joint courses and degrees?***

- ***What challenges does virtual mobility pose in terms of recognition and the application of the ECTS system? What about competences and a competence portfolio?***
- ***What about a EvirtHEA? Is it necessary? Why, why not?***
- ***What recommendations can be made in addition to the ones that were already formulated earlier (see Zgaga 2003[13], Annexes, p. 65 et sqq.).***

Opening up higher education to the larger society

In the first forum of the European e-learning portal about university challenges in ICT times[14], Tapio Varis, professor and Chair of Media Education at the University of Tampere (Finland) and UNESCO Chair in Global e-Learning stated: "the globalization of society and the rise of a knowledge-based economy have combined in the past decade to impose drastically raised expectations upon higher education institutions. (…) This vision of the new university emphasizes more than before the role of market forces in shaping the institution, the need to respond to users' needs, and the need to deliver knowledge continuously through distance learning and lifelong learning. However, the vast majority of universities as well as the public and private organizations they work with are unprepared to reorganize themselves to address these new demands". Universities must leave their ivory towers and become open to the large society, which by the way has an increasing demand for accountability of its investments in higher education.

Opening up higher education to the larger society can be considered around three topics:
- Widening the access to higher education for groups that are so far underrepresented in their participation;
- Increasing the services that higher education pays to society at large;
- Involving societal partners in goals and activities of higher education.

The first topic is for almost twenty years the reason of existence of the European Access Network (EAN)[15]. It ran promotion campaigns and used its network to develop and disseminate "access programmes" that stimulate, prepare and facilitate the access of groups with low participation for physical, social, economical or ethnical reasons, and that provide adapted support during study. With respect to the Bologna process, EAN puts the question *how inclusive is the EHEA*? Although primarily oriented towards conventional higher education, EAN recognized the potential of distance education to combat exclusion.

Society is funding higher education to an extent that is a multiplication of the subvention of other levels of education or most other sectors of societal life. It increasingly demands accountability for what is being done with this money. Universities (and higher education at large) accept their dept to society and accept societal service as an essential part of their mission. They often consider however only specific activities under the heading of this societal service. Contract research, participation in popular scientific information dissemination, and opening institutional facilities to persons not belonging to the institution are examples of what by them is considered as such. Higher distance education will only reach its full societal relevance if underpinned by efficient partnerships between higher education and other sectors in society. Public and private networks play an important role in this context. The question should be put whether the provision of good distance education in the perspective of lifelong learning is not an essential element of the higher education social obligations.

[13] Zgaga,P. (2003) Bologna Process between Prague and Berlin http://www.bologna-bergen2005.no/PDF/00-Main_doc/0309ZGAGA.PDF
[14] http://www.elearningeuropa.info/doc.php?lng=1&id=1358&doclng=1&sid=b752c18cf7f024408b82dc38dc47bbf8
[15] http://www.wmin.ac.uk/ean/

It would be unwise to omit the corporate world in the reflection on lifelong learning and distance education. More than recognition of certificates in view of the continuation of study and quality assurance to facilitate the finding of cost-beneficial offers for the individual, the corporate world in general and the employer in particular will be the instances that accept or reject the validity of the (mature) learner's effort and success.

Awareness raising about the potential and value of distance education is as much needed for the corporate world (and especially for employers of micro and small companies) than it is for conservative professors in traditional universities. Most higher education institutions have good and direct connections to companies, with the non-university institutions often in favour of universities when it comes to relations with SMEs. Using these connections by involving companies in networks (e.g. in the framework of relevant projects) may provide a good substrate for convincing them through examples of good practice.

However, having an individual employer (or human resources manager, training manager) convinced to recognise the certificate is only half the job. Networking with inclusion of the corporate world is also necessary for influencing the content of lifelong learning offers to make them useful in an optimal way.

The corporate world is also including the commercial training companies or departments of training. Recognition of diplomas and certificates used to be a privilege of mainstream education until recent. Nowadays, certificates of e.g. CISCO Academy, Novell, Microsoft, IBM and others are at least as well appreciated (and hence recognised) by companies than official diplomas of universities. The competition between higher education and these commercial initiatives will likely increase in the future and should get valid responses from the educational world. The academic world should learn from the professionalism of the corporate world: learn to act faster and provide more concrete, practice oriented education and training, market and promote products, be "customer" oriented. The academic world is ahead with respect to content, and companies are willing to collaborate for that purpose. Both worlds have their own networks and collaboration (but also competition) within these networks. Public-private partnerships can bring together the best of both worlds.

Key questions that can be put are:

- ***How can e-learning and distance education be used to widen access and promote inclusion of underrepresented learner groups?***
- ***Can we identify good practice in combining the objective of widening access to e-learning programmes with efficient cooperation with the business sector?***
- ***(Higher) education plays/can play/should play an important role in regional development. How can e-learning and distance education contribute to this development?***
- ***What does this mean in a context of the expanding EHEA with its heterogeneity of 40, soon 46 countries? Should an EvirtHEA be instrumental for this purpose? In what respect?***
- ***Can we identify good practice of public-private partnerships for virtual instruction? What have turned out to be the concrete benefits? What were problematic areas in this cooperation?***
- ***What recommendations can be made in addition to the ones that were already formulated earlier (see Zgaga 2003[16], Annexes, p. 65 et sqq.).***

Conclusion

[16] Zgaga,P. (2003) Bologna Process between Prague and Berlin http://www.bologna-bergen2005.no/PDF/00-Main_doc/0309ZGAGA.PDF

Distance education and lifelong learning are challenging mainstream education in many respects. The issues of recognition and quality assurance are key factors in this process, but must be considered in the broader context of their links with other aspects such as pedagogy, technology, policies, etc. Expecting that the presence of e-learning courses on campus is sufficient to provide a distance education offer in mainstream education is simplistic: mature learners as the preferential users of distance education need a specific approach. Mainstream education can learn from open universities (and vice versa) to understand and adequately respond to the challenges; virtual instruction embedded in (cross-border) networking between higher education institutions with involvement of the corporate world and the larger society is part of the answer. But above all, the Bologna process must pay explicit attention to these challenges and the way they are tackled. Therefore, having evaluative reflection on intermediate outcomes is desired and even necessary. Such reflection should involve both the policy makers and “people on the work floor” of governments and the academic world.