

Joint Curriculum Developments in the Field of Virtual Space Design

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Abstract. The topic of joint degrees is high on the higher education policy agenda. The eCAADe 2006 theme offers the opportunity to investigate the topic from the aspect of virtual space design, especially within the second conference topic: communicating within mediated spaces (CVE-s). The paper proposed initiates a discussion-forum to raise and discuss open questions of joint curriculum development in the field of virtual space design, especially where CVE-s take the key role within the educational process. The starting points of the discussion can be found in the ongoing endeavours of the e-Learning project entitled VIPA and the current curricular changes in the 'new' EU countries following relevant directives and declarations. The main goal of this forum is the development of the specific criteria for quality assurance, to enhance the motivation of joint curricular developments in the field mentioned.

Keywords. Architectural Education; E-Learning; Virtual Space.

Introduction

The term virtual space design seems ambiguous: its meaning depends on the emphasis taken. Focus on 'space design' can be understood in the broadest sense of architectural activities. Focus on virtual space indicates that the field of architecture is perhaps limited to design of virtual space as the final user's space. Education deriving from these two starting points may lead to diverse educational profiles. The paper presented focuses on the general notion of the term and is taken from the ongoing e-Learning project entitled VIPA (Mullins et. al., 2006), a transnational e-learning and research platform for European architectural schools; and a potential platform of curricula developments in virtual space design. When the emphasis is shifted from 'space design' to 'virtual' the specific questions of architectural education seem to be 'overwritten' by general ones; and joint curricular endeavours seem more relevant than in the case of 'traditional' architectural education. Educational programmes and their parts oriented towards virtual space design are linked by the development of new specializations in architecture or even new professions (3D Artist); their target groups are (besides architects) game designers, visual designers, computer scientists etc.; and are employable in industry.

What are the possible criteria for selection of existing and introduction of new courses into a joint curriculum? What can be 'regulated' in the fast developing field such as virtual space design, especially while understood in the narrow sense, and what should be left for any further development? What is the level of professional degree most suitable for a joint solution in this field? What are the educational profiles most needed in this field? What does this mean for 'traditional' architectural education?

Work within the e-Learning project entitled VIPA raises the question of synergies, between both the project partner institutions and also a wider organizational framework. Shared project scenarios show that different formats for architectural education still limit the actual freedom of joint curriculum developments. The needs and expectations of a sustainable project require solutions beyond these limitations.

Quality assurance and criteria

It has been argued that the topic of joint degrees is high on the higher education policy agenda (Rauhvargers, 2006). The Bologna process is promoting the development of joint degrees between institutions from more than one country of the European Higher Education Area. The Bergen Communiqué (May 2005), calls for actions to support the recognition of such degrees. At the same time the European Union, with the Erasmus Mundus programme, is supporting a large number of European institutions in establishing and delivering joint master's degrees that involve a minimum of three higher education institutions from at least three different member states (European Commission Education and Training, 2006). Masters courses constitute the central component around which the Erasmus Mundus programme is built; the programme presently offers approx. 50 joint degrees, however there are no programmes at all under the heading 'architecture, urban and regional planning'. Mutual recognition and quality assurance is one of the key issues of joint curricular developments, leading to recognition of individual degrees and other proofs of course/curriculum finalization. Instruments aiming at transparency of qualifications consist of the European Credit Transfer System (ECTS), introduced by the Commission more than 10 years ago as a common basis for recognising students' study periods abroad and more recent initiatives such as the European Qualifications Framework (EQF).

Recent discussions within the Working Party Diplomas as part of the Advisory Body on the Education and Training in the field of Architecture show that there are many new, open questions in the field. The 'new' Directive (2005) maintains basic criteria from the previous version (1985), but the Bologna process and developments in architectural educational have already introduced new formats and models. Local curricular contents of architectural education could be regarded as being in compliance with the directive, as long as they clearly follow the guidelines of the 2005 directive.

It can thus be argued that the 2005 directive allows the space for any orientation architectural schools may wish to follow. The implication is that 60 ECTS from the final 'masters' years or the 5 'architectural' years (regardless of the formal educational model employed: 4+1, 3+2, or 5+1) is the maximum which can be oriented to 'virtual space design' exclusively. The rest of the programme should demonstrate the balance of the 11 guideline points and the spirit of the directive. The third Bologna cycle, on the other hand, offers even more freedom although the level of this freedom depends on the system of programme financing.

From this perspective, the 2005 directive for architects may be used to establish a set of criteria shared by the developers of the joint curricula in the field of virtual space design. This is not a purely juridical question but a question of the establishment of minimal joint standards in the field to introduce existing or new parts into a shared curriculum, which is independent of different formats for architectural education and different ECTS practices, employed by the partner universities. Joint quality assurance is essential, it enables recognition processes, and it enhances convergence and transparency of systems.

Application of the criteria from the 2005 directive to the field of virtual space design may serve as the platform of quality assurance in the related field-focus:

1. an ability to create virtual architecture/spatial creations that satisfy the aesthetic and other needs of the end-user
2. an adequate knowledge of cultural studies and technologies
3. a knowledge of the fine arts as an influence on the quality of virtual space design
4. an adequate knowledge of information and communication sciences

5. an understanding of the relationship between people and virtual spaces, and between virtual spaces in relation to people
6. an understanding of the evolving and rapidly changing professions
7. an ability to prepare a brief for a virtual design project
8. an understanding of the engineering topics/problems related to virtual space design
9. an adequate knowledge of problems and technologies related to accessibility/safety and stability of virtual designs and systems
10. the necessary skills to meet formal regulations in the field
11. an adequate knowledge of the industries, organizations and procedures involved in translating design concepts into systems, accessible for end-users.

The quality assurance system is developed by the network of evaluators. The possibility to engage people from the existing network of reviewers of the eCAADe and the sister organizations seems one of the realistic options to develop the personal infrastructure of programme evaluators.

Common strategies for curricular developments

The process of educational reform (the Bologna process, and, especially after 2004 in the 'new' EU countries, such as Slovenia, trying to meet all the EU directives, changing the curricula from the first to the third 'Bologna' cycle) offers an opportunity for new EU educational coherence. On the other hand, the level of educational variety increases with new members. The 2005 architectural directive raises an analogy of development of simple set of joint criteria relevant for all the participants willing to develop joint programmes (or their components); criteria, which are area specific and enable first mutual recognition of curricular components and possible joint new development. Special conditions of the cultural context can thus be respected but general requirements met simultaneously. Due to the diverse needs of institutions willing to participate in joint endeavours, the level of coherence with the common platform may be different for each participating institution. The 'easiest' part of new curricular development, which is part of an 'ideal' joint programme may even stay virtual for a while, but still serves as a reference for educational linkages.

The VIPA project's intermediate results show the possibility of complementary joint curricular developments, where the needs of particular institutions vary from the need of new contents in existing courses to the needs of development of new curricula. The legal framework for joint or double degrees is set up in all the countries relevant, but their needs and pedagogies are still different. Joint programme organization doesn't necessarily lead to joint accreditation processes (certification) and degrees. Best-practice examples of joint doctoral programmes organization (European University Association, 2005) show that a degree from the home institution, with an additional certificate indicating the joint nature of the curricular organization, is a good compromise. This solution takes into account the multiple identity of the diversity of partners involved still oriented into their common goal. Nevertheless, the generalist nature of the field of virtual space design leads to further examination of the motivation to develop joint curricula in the most coherent manner possible. Table 1 illustrates the step of checking of how the existing courses of motivated partners fit to their joint 'ideal' prototype curricular structure (see also Mullins et. al., 2006). This is one of key starting points to develop strategies for the implementation of this curriculum (table 2).

Table 1. First steps towards a joint curriculum of virtual space design (case: VIPA).

	Theory (ECTS)				Practice (ECTS)	
	Module 1	Module 2	Module 3	Module 4	Module 5	Module 6
Partner 1	courses not available	courses not available	courses not available	courses available	missing ECTS	courses not available
Partner 2	courses available	courses not available	courses available	courses not available	courses not available	courses not available
Partner 3	courses available	courses not available	courses available	courses not available	courses not available	courses available
Partner 4	courses available	courses available	courses not available	courses available	missing ECTS	courses available

Figure 1. Possible scenarios of joint curricular implementation (case: VIPA).

Curriculum development stage / means	Partners fully agree about the development stage	Partners partially agree about the development stage	Decision levels	Funding, space and organizational capacities	Implementation timeframe
Addition of existing courses flexible enough to take over VIPA contents (at partner universities)	SCENARIO 1A - requirements fulfilled - new courses: option	SCENARIO 1B - option still: adding new courses	VIPA project level, teachers	Existing funding, students, staff, administration, maintenance (sources: local, exchange programmes, etc) + VIPA platform	1 year after the end of VIPA project
Addition of new courses within the partner universities that fulfill missing gaps	SCENARIO 2A - addition of existing courses with modified content is still an option - VIPA is on the good course toward joint programme	SCENARIO 2B - previous step of adding existing courses with modified content is still an option	Approval needed above the VIPA level: decision boards at (most at) faculty, university and ministry level	Existing funding, students, staff, administration, maintenance (sources: local, exchange programmes, etc) + VIPA platform	1-2 years after the end of VIPA project (depending on the decision boards)
Setting up new programme dimension / New study programme	SCENARIO 3A - joint programme fully shared by all partners - new partners have to fulfil all requirements to join	SCENARIO 3B - joint programme is established among agreeing partners, other join later as they fulfil (VIPA and legal) requirements	Major approvals of decision boards needed (faculty, university and ministry level)	New needed (funding, students, staff, administration, maintenance) + existing VIPA platform	2-3 years after the end of VIPA project (depending on the decision boards)

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