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A Responsive Approach to the New Academic Mobility.
Building a Conceptual Framework for Embedding Digitally
Enhanced Mobility in a European University

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Abstract

Educational practices have dramatically changed in the past few years, especially due to the COVID-19 pandemic. Universities, academics, and civil society had to respond to a shifting educational landscape. The growing interest of that time for student mobility had to take a break, offering the opportune context for innovating mobility formats and enriching the presence of virtual (digitally enhanced) mobility in higher education teaching and learning. Targeting many “mobile” students, European Universities Alliances had to quickly react and adapt to these changes, reconfiguring their educational offerings and the corresponding conceptual framework. In this context, at the level of CIVIS – a European Civic University, one of the first alliances of the European Universities Initiative, we designed an innovative conceptual framework for embedding virtual (digitally enhanced) mobility in the alliance’s educational offer, integrating methodological and procedural components into a unique tool, as a coherent approach to the emerging growth of virtual and blended learning at the European level. Therefore, we proposed a virtual mobility matrix, as a basis for developing enhanced virtual learning components, and as a starting point for larger curricular constructs, such as the European Degrees. The aim of the current paper is to present the process of designing and implementing a conceptual virtual mobility framework, as a starting point for developing an integrated and innovative educational offer at the higher education level. The framework adopted by CIVIS European University renders the intermediate steps towards implementing European Degrees and embedded mobility approaches at the alliance level, contributing to the objectives and visions of the European Universities Initiative and the development of the European Higher Education Area.

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1. Introduction

Virtual mobility has encountered an important increase in international higher education practices, not only because of the pandemic's impact on designing and delivering education, but also due to the dynamics and changes of students' needs for a more flexible approach to teaching and learning. Some boundaries and clarifications are yet to be made on the role and presence of virtual mobility experiences in learning activities, and here is where contexts such as the European Universities Initiative (European Commission, n.d.a) play a major role in testing and piloting new approaches for designing a coherent way for such processes.

The aim of the study is to present the steps and actions that were taken for designing and developing a conceptual curricular framework in one of the first European University Alliances, CIVIS European University, starting from the construction of a virtual mobility conceptual approach. The paper will describe both the work and process, as well as the outcomes that serve as a basis for shaping a CIVIS innovative educational offer.

The main component of the present study is based on the CIVIS Handbook on Virtual Mobility (Iucu et al., 2022), a practical tool which offers support and guidelines for designing, managing, and delivering educational activities that are accompanied by virtual mobility components. The CIVIS curricular framework offers a conceptual and practical way forward for academics, researchers, and decision-makers to develop new formats for teaching and learning, in a flexible way, addressing the needs of all students in an inclusive manner. The educational components included in the matrix, described in the present analysis, can stand as a valuable example of a piloting process that supports innovation in the European higher education sector, while also creating a context for sharing best practices with other alliances and universities.

There are more documents emphasising the idea of developing virtual mobility as a means for increasing students mobilities (European Commission 2017; 2022), whereas only a limited number of studies that are focused on the institutional perspective of developing it (Ubachs, Henderikx, 2018). We consider it important to maintain a holistic approach when investigating the process of developing and implementing a scalable framework for virtual mobility. In this regard, precisely, this study proposes an empirical dimension towards this approach, and its novelty represents the integrated way for building and embedding virtual mobility in higher education contexts, based on modularisation of learning activities.

2. Problem Statement; Digitally Enhanced Mobility for Flexible Curricula in Higher Education

Virtual mobility has great potential for developing new and flexible learning pathways, connecting universities, and ensuring an integrative approach to student mobility. The concept is widely used, especially in recent years, and different definitions are given. Moreover, there are different terms related to virtual mobility and the similarities and differences between the terms are analysed. Higher education institutions strived to create contexts that promote mobility for all members of the academic community. Internationalisation proved its potential in increasing the quality of educational processes, and universities sought new / improved ways to collaborate and open their campuses for international students (Altbach, Knight, 2007).

Information and communication technologies (ICT) significantly contributed to a new kind of mobility, more accessible and easier to achieve virtual mobility. “Internationalisation at home” (IaH), a term coined by Bengt Nilsson in 1998 (Crowther et al., 2000), was the starting point for increasing access to various international learning experiences for students who cannot access physical mobility. The concept of virtual mobility opened students’ perspectives and borders to enriched learning experiences and intercultural collaboration in an innovative international environment created through the collaboration between universities and was reshaped according to the educational policies and strategies for the higher education environment in line with substantial developments in the field of ICT. There are some terms and concepts related to virtual mobility and debates about what can be included in this category. For example, MOOCs (Massive Online Open Courses) have many of the virtual mobility features, but are a tool that can be used to support virtual mobility, due to collaborative intercultural efforts. Dondi and Salandin (2010) underline that the differences between the dimensions that characterise virtual mobility are not present in e-learning and distance learning: internationalisation and cooperation, virtual exchange, while virtual mobility uses distance education principles to build its learning framework. There are significant similarities between virtual exchange and virtual mobility and the two terms are often used with the same understanding; still, in virtual exchange, the aim of the activity is “on people-to-people interaction and dialogue” (European Commission, n.d.b), also integrating virtual exchange components for soft skills development.

The European Commission has addressed virtual mobility as a key issue for the future of higher education, including virtual mobility in the Erasmus+ initiative with the aim of increasing the number of students’ mobility (to 50% in 2025). Virtual mobility is also defined as a type of mobility that uses the advantages offered by ICT to create learning experiences with the same benefits as physical mobility (Commission of the European Communities, 2009). However, even if virtual mobility was seen at a certain point as an alternative to physical mobility, other approaches brought different perspectives, and virtual mobility was used in addition to physical mobility.

In the CIVIS Handbook on Virtual Mobility (Iucu et al., 2022), the concept of virtual mobility is analysed together with previous CIVIS experiences in conducting learning activities with virtual or blended components: “virtual mobility can cover a wide range of international learning and teaching, research, and collaborative activities, in an online environment, empowering students with learning experiences, and promoting the development of the competences for a knowledge-based society” (Iucu et al., 2022, p. 11). Considering this definition, different CIVIS physical and virtual learning experiences were analysed and framed to identify common understandings.

The COVID-19 pandemic was a worldwide challenge for educational institutions and Emergency Remote Teaching (ERT) was adopted to ensure access to education, shifting from face-to-face to online education. There was an increased focus on virtual mobility, and there were concerns about the potential of replacing physical mobility with virtual mobility soon. The students’ representative bodies at the European level, such as the European Students’ Union (ESU) and the Erasmus Student Network (ESN), underline the importance of separating virtual mobility from physical mobility, which has been seen as the main driver for transformative experiences. In their vision (ESU & ESN, 2021), virtual mobility can be used in addition to complete physical mobility or as a support to increase internationalisation and access to specific online learning activities, using digital means. As a response to the reshaping needs of mobilities within the European Higher Education Area (EHEA) and ESU’s statement on what virtual mobilities should represent in the future, the Rome ministerial conference (EHEA, 2020) further commits to “enabling all learners [...] to experience some form of mobility, whether in physical, digitally enhanced (virtual) or blended formats”. This conceptual redesign and interpretation recognise that virtual mobilities must not be seen as replacements or substitutes for physical or blended mobilities, but as complementary learning opportunities.

3. Research Questions / Aims of the Research; Pathways for European Degrees

Starting from the need of establishing a common framework for designing and implementing virtual mobility learning opportunities across the alliance, work has been done for identifying the most suitable educational components that would answer to the student’s needs and the alliance’s specificities. The process of designing and implementing a conceptual and curricular framework for delivering virtual mobility educational components at the alliance’s level considered some questions and concerns, of which some research questions (RQ) are presented here:

RQ1: How can we define virtual mobility and what are its main characteristics?

RQ2: What are the most suitable learning components to be delivered based on virtual mobility at the level of the alliance?

RQ3: How can we embed an approach to micro-credentials in the new curricular framework?

As one of the first pioneering European University Alliances, part of the European University Initiative’s (European Commission, n.d.a.) first wave of

alliances, CIVIS aligned its strategic priorities to the major development directions at the European level, this including topics such as the European approach to micro-credentials, the European student card initiative, as well as the new Erasmus+ framework for blended mobilities across Europe. The framework thus addressed the need for developing a more flexible approach to designing education, as a CIVIS modular approach, in line with the European approach to micro-credentials (European Commission, n.d.c).

We consider that the results of this analysis will support the exchange of best practices with regard to building an innovative educational offer at the European level. As piloting arenas for innovation and change in higher education, we believe that the alliances' experience represents valuable assets for a real community of knowledge.

4. Research Methods for Building CIVIS Virtual Mobility Framework

The modularisation of learning activities together with virtual mobility was extensively explored to design a coherent framework applicable to the CIVIS Alliance and other European alliances and academic communities. The research used a qualitative approach, and it was organised in three stages: literature review and document analysis, workshops with stakeholders, and best-practice analysis. Moreover, it started with literature and document analysis to identify the existing concepts and experiences in the field of virtual mobility. One of the key issues was to identify the pillars to support a virtual university environment that enables students to build their own learning pathways. The analysis included research on policy documents, evaluation, and frameworks and offered qualitative data used to establish the current state of the examined components. The results of this stage consisted in pointing out the main dimensions of a virtual mobility environment.

These dimensions were discussed and validated through four thematic and two transversal workshops organised within the first CIVIS Virtual School on Virtual Mobility, with more than 150 participants, involving policy makers, stakeholders, academics, and researchers. Each workshop was planned around a specific subject:

- a) building European Study Programmes - strategic decisions and policies needed;
- b) research and innovation strategies and operational tools for thematic activities;
- c) course design with virtual or blended component to build flexible curricula;
- d) innovative pedagogies as necessary ingredients for virtual learning activities;
- e) multilingualism as a strategic point for the development of the project. The discussions explored each topic, collecting the participants' input.

Data analysis included the revision and organisation of information offering an improved theoretical framework that needed to be adapted to the alliance's context. Examples of learning activities with virtual or blended components were provided by CIVIS partner universities. They revealed a variety of learning activities, from regular courses to short-term and modules in CIVIS universities. The analysis of best practices considered several characteristics and focused on the common dimensions of a coherent virtual mobility framework, with modularisation as a key indicator.

Our study also poses some limitations, especially due to the research context and the COVID-19 pandemic impact, the first of which refers to the literature review and the extent of previous studies on this topic. Even though the concept of virtual mobility has a long history in the educational language, it was mostly analysed through European and international policy documents rather than in research studies. The pandemic changed perceptions on virtual mobility and on its role in ensuring accessibility to different learning contexts. Secondly, our study’s research design did not include quantitative data analysis, understanding that such approaches could offer insight into designing a coherent curricular approach, based on virtual learners’ experiences in virtual mobility learning contexts.

5. Findings; CIVIS Virtual Mobility Framework

The CIVIS modular approach was designed on pillars such as embedded mobility (virtual, physical, or blended), innovative pedagogies, multilingual practices and contexts, enhanced recognition of learning (through ECTS credit points, an umbrella agreement, and the CIVIS Passport), and flexible learning pathways.

Table 1. CIVIS Virtual Mobility Curricular Matrix

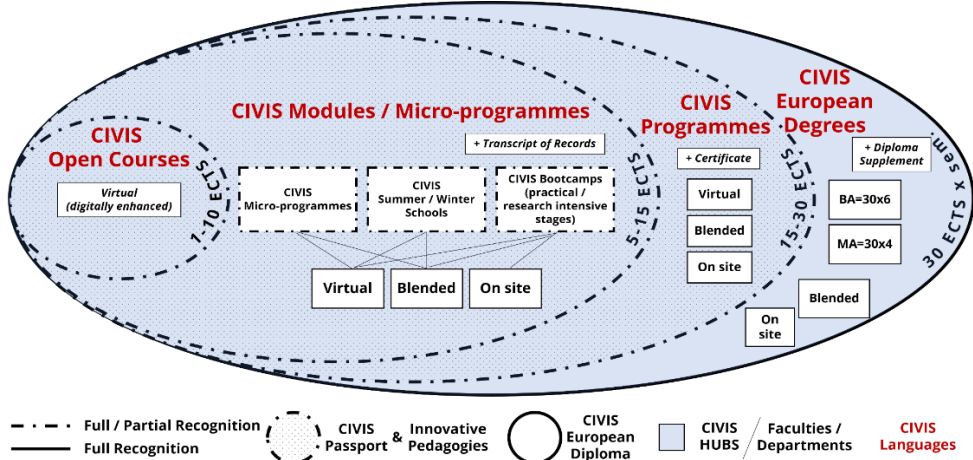
No.	CIVIS VM	ECTS	Delivery mode	Recognition & Certification
1.	CIVIS Open Courses	1-10	Virtual (DE)	Full / Partial & CIVIS passport
2.	CIVIS Modules / Micro-Programmes			
2.1	CIVIS Summer / Winter Schools	5-15	Virtual (DE) / Blended / On site	Full / Partial & CIVIS passport
2.2	CIVIS “Bootcamps” (Practical / Research Intensive Stages)	5-15	Virtual (DE) / Blended / On site	Full / Partial & CIVIS passport + Transcript of Records
2.3	CIVIS Micro-Programmes	5-15	Virtual (DE) / Blended	Full / Partial & CIVIS passport + Transcript of Records

Source: Adapted from Iucu et al., 2022, p. 26.

As the CIVIS Matrix shows (Table 1), the alliance built an educational offer starting from individual courses, mainly delivered in a virtual format, as a first level of modularity, and the CIVIS modules (CIVIS Summer / Winter Schools, CIVIS Bootcamps, and CIVIS Micro-Programmes) as the second level of the matrix. The matrix not only allows the development of several educational components that are interrelated and allow recognition of previous learning, but also especially promotes a flexible “stackable” design, in which each CIVIS Module is composed of smaller units, independently delivered and recognised, but able to build on larger certifications, such as CIVIS European Degrees, delivered jointly at the alliance level through the transnational cooperation of at least three partner universities. As one of the testbeds (European Universities) for innovating higher education across Europe,

the proposed curricular framework developed in CIVIS (see Figure 1) creates the conceptual and pedagogical context for transforming European strategic priorities into concrete higher education innovation practices.

Figure 1. CIVIS Curricular Diagram



Source: Iucu et al., 2022, p. 25.

Along with a short description of each building block of the CIVIS VM matrix, we designed a framework that mentions paths of delivery and length, ECTS credit points for each category, and formal recognition possibilities, as well as the potential of contributing to building the European degree. An overview of some of the main features of each category can be found in Table 1, while below we include a short description for each of the components. Regarding the ECTS credit points, as can be seen in the CIVIS curricular matrix, all activities should mention ECTS credit points, assigned based on the overall length of the activities, and clearly defined according to the student workload (25-30 hours per credit point) and assessment / graduation requirements.

Benefiting from the different major languages spoken in the Alliance (English, French, German, Spanish, Greek, Italian, Swedish, or Romanian), CIVIS supports the linguistic diversity through multilingual tools, communication, education, and research, but also offers innovative language-learning methodologies for its students. Therefore, all activities included in the Virtual Mobility Matrix can be delivered in any of the languages present in the alliance or in any combination of these languages (more than one language per course). This process recognises and empowers cultural exchange and multilingualism as strategic development points for the Alliance.

Innovative Pedagogies are not just practical means for innovation teaching and learning in higher education, but also a strategic approach for creating a CIVIS educational brand connected to the higher education and European universities landscape. Linked to the theoretical and practical aspects included in the CIVIS Handbook on Innovative Pedagogies (Ciolan et al., 2021), pedagogical innovation

practices should be included in the teaching design, either by replicating at least one of the examples provided in the CIVIS Innovative Pedagogies Database, or by enriching the database with new designs and proposals (contributing to the continuous development of this project and providing practical models of pedagogical innovation to academics and practitioners from all CIVIS universities).

CIVIS Open courses, as core building blocks of the CIVIS programmes, can include a variety of different learning experiences, courses / disciplines, regardless of the status of the discipline (compulsory, optional), its category (fundamental, specialisation courses), duration (from few weeks with concentrated activities to a full semester) or study programme type (full-time or part-time). It can cover regular online/ blended courses or newly designed courses or learning experiences outside the current curricula, with the possibility of integrating them in the curricula according to national regulations. Moreover, there are CIVIS Courses collaboratively designed and delivered by at least three CIVIS partner universities, either through different calls or by a direct collaboration between faculties, departments, or doctoral schools, with different length and structure, from one to multiple learning units.

CIVIS Summer / Winter (Seasonal) Schools consist of a series of events and activities that might be accomplished through workshops, webinars, and / or lectures, accompanied by individual study. They cover a large variety of subjects / topics and can be organised at Bachelor, Master, or Doctoral level (BA, MA, PhD). CIVIS Seasonal Schools can be either physical, blended, or virtual, and an intensive approach is recommended to develop the educational activities included in their schedule.

CIVIS Bootcamps stand for intensive research / practice stages, since these components of research and practice are in many cases basic requirements for study programmes, at any of the cycles (BA, MA, PhD), but especially linked to doctoral studies and post-doctoral programmes. Moreover, ECTS should be assigned based on the regulations and practices existing at national and institutional level and in accordance with the ECTS Guide (European Commission, 2017). In essence, students of all levels are interested in extending their experience in additional research experiences, with emphasis on practical components, or as internships in any of the CIVIS universities. Depending on the level of study, research activities / internships can be research / innovation-oriented (addressing a restricted number of students, depending on the thematic) or research-informed / learning-oriented (addressing mainly to BA students and appropriate to larger groups of students). Activities included in these stages can cover several weeks of intensive activities (as, for example, during summer break of students), or it can be spread over one semester, linking it also with a traditional Erasmus mobility.

CIVIS Micro-programmes (MPs) represent learning components that offer students short and medium sized learning activities, on a variety of topics and formats, built on different smaller units of learning (courses, research, and practice activities / projects, etc.) that exist within CIVIS curricular offer or are newly designed for the micro-programmes' purposes. MPs allow students to combine

multiple CIVIS Single Learning Activities (SLAs) into one coherent learning pathway that reinforces or complements their main study programme. With transdisciplinary or disciplinary approaches and interests, MPs offer CIVIS students the possibility to follow their own learning and training interests, deepening their knowledge in specific topics. They provide the students access to a wide range of disciplinary / interdisciplinary / transdisciplinary learning opportunities linked around one large topic, in a collaborative and modular curricular framework, but also extra-curricular topics and interests, in the training of transferable skills or challenge-based learning approaches, linked, for example, with the CIVIS challenges.

6. Conclusions

Virtual mobility remains an important component for delivering innovative educational activities at the transnational level. Its added value and relevance for the new approaches towards an inclusive and sustainable learning environment and experiences up to this moment do not tend to present virtual mobility as a “pandemic-only” solution only. Nevertheless, lessons learned during these transformative times will remain in higher education practices, and virtual learning components are yet to become even more important in building new teaching and learning activities. In the most recent Erasmus+ programme (European Commission, 2022), blended learning has turned out to be one of the most interesting and attractive tools for innovation.

Defining virtual mobility is an ever-changing challenge, as technology is not static, and the students’ needs and abilities have different response rates to these changes. Society is highly impacting such indicators, testing the conceptual statement through several scenarios and educational contexts. We believe that the CIVIS conceptual virtual (digitally enhanced) mobility framework offers space for innovation, allowing future emulations that can adapt to change and developments in this area. The alliance’s view on how virtual mobility can become an asset for learning activities successfully responds to the new educational paradigm, in which students are empowered through enriched learning activities that “promote the development of competencies for a knowledge-based society” (Iucu et al., 2022, p. 11). Moreover, the CIVIS practice has been also further analysed in a UNESCO study on the role and presence of virtual mobility in different higher education contexts across the globe (Sabzalieva et al., 2022). Virtual mobility is regarded as an experience where students collaboratively build a knowledge-based society, fostering all formats of exchanges, supported by the growing offer of online platforms and tools. Answering to our first research question, virtual mobility can be seen as an inclusive approach for creating enriched transnational learning opportunities for all students, opening access to non-traditional students and to those with less chance to venture on a traditional long-term physical mobility.

Developing a virtual mobility framework not only supported understanding of the concept and using it for further design processes, but became the baseline for developing an educational offer. This offer starts from small learning units and builds larger educational components in a stackable and modular approach. The alliance’s response to the European approach to micro-credentials (European Commission,

n.d.c.) and the experience of enriching learning experiences through virtual mobility activities paved the way for an enhanced educational curricular framework. The framework encompasses the most suitable teaching and learning activities that could respond to the changing educational landscape and the students' needs for flexible and customised learning pathways. With a relevant emphasis on the modular design, innovative pedagogical approaches, multilingual and multicultural exchanges, and recognition of all types of learning, the new curricular framework becomes a model for innovation and change in the designing process of educational activities at the European level. This allows academics to design flexible programmes, based on modular designs and interconnected components, in line with the European agenda and the approach on micro-credentials, offering the students an active role in creating their own learning pathways.

The analysis does not represent an over-functional model for educational innovation in European higher education but can be seen as a useful experience for all academics, researchers, and decision-makers that are engaged in developing new frameworks for designing and delivering innovative approaches to teaching and learning in higher education. We consider that such analyses could be replicated and address several higher education contexts, offering a common answer to the needs for flexible, modern, challenging, and innovative European curricular frameworks.

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