



PROCEEDINGS OF INTERNATIONAL SCIENTIFIC CONFERENCE

DIGITAL COMPETENCIES IN HIGHER EDUCATION

September 18, 2025
LOGOS University College, Tirana, Albania





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TRENDS, CHALLENGES AND PERSPECTIVES



Co-funded by
the European Union



LOGOS UNIVERSITY COLLEGE

September, 2025

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an initiative of LOGOS University College, supported by the consortium
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CONTENTS

ABOUT THE EDITORS	5
Welcome Speech:	
FOSTERING INNOVATION AND ADVANCING DIGITAL COMPETENCIES IN HIGHER EDUCATION	8
PROF. ILIA NINKA , RECTOR	
DIGITALIZATION AND ITS IMPORTANCE IN THE LABOR MARKET	9
MRS. GERTIOLA CEPANI	
ADDRESSING THE DIGITAL LEAP IN THE WESTERN BALKANS Preliminary impact exposition of the HOMO DIGITALIS Erasmus+ CBHE Project	10
PROF. KONSTANTINOS GIAKOU MIS	
THE STRATEGIC ACTIONS FOR AI IN HIGHER EDUCATION	12
EMERITUS PROFESSOR, NIKOLAOS AVOURIS	
SUMMARY OF ACTIVITIES	16
PART ONE: DIGITAL COMPETENCES IN HIGHER EDUCATION AND THE LABOUR MARKET	19
(1) THE IMPACT OF DIGITAL TRANSFORMATION ON HUMAN RESOURCE MANAGEMENT CASE STUDY: ALBANIAN UNIVERSITIES DURING THE PANDEMIC PERIOD	21
EMIRA SPAHAJ, EDISELA MENA, MALVINA HYSA, BLERTA AVDIA	
(2) BARRIERS AND OPPORTUNITIES IN ALBANIAN HIGHER EDUCATION FOR STUDENTS WITH DISABILITIES. A MIXED-METHODS ANALYSIS	37
BLERTA DRENOFCI (ÇANI), VALBONA NATHANAILI	
(3) THE DIGITAL EMPLOYMENT GAP IN ALBANIA Challenges and Strategies for Higher Education	61
GERTJANA HASALLA	
PART TWO: INSTITUTIONAL STRATEGIES AND POLICY DEVELOPMENT	75
(4) INTEGRATED TECHNICAL ASSESSMENT AND RESTORATION STRATEGY FOR THE ‘TOPULLI’ HOUSE Revitalization Pathways and Advanced Digital Technologies	77
NIKOLLA VESHO, PANAGIOTIS KYRATIS, AJLA GJOKA, LUMTURI HASKA, SARA CIBA, MIGENA GJONI, ARDIS DUKA, ROMIR MAZARI	

(5)	THE ROLE OF MOOCS AND OPEN EDUCATIONAL RESOURCES IN HIGHER EDUCATION Applications in Teaching Medicine and Laboratory Science	101
	DORINA MINXURI	
(6)	LANGUAGE TECHNOLOGIES AND DIGITAL HUMANITIES FOR LOW-RESOURCE LANGUAGES AND COMMUNITIES.....	113
	ARBANA KADRIU, LEJLA ABAZI-BEXHETI	
(7)	THE COGNITIVE-DIGITAL TURN IN HIGHER EDUCATION A Longitudinal Analysis of AI Engagement in an Architectural Design Studio	125
	FULVIO PAPADHOPULLI, MEGI TAF AJ	
(8)	DEFINING A STRATEGIC ACTION PLAN FOR AI IN HIGHER EDUCATION.....	141
	NIKOLAOS AVOURIS	
(9)	INSTITUTIONAL POLICIES AND STRATEGIC DIRECTIONS FOR ADVANCING DIGITAL COMPETENCIES IN HIGHER EDUCATION.....	153
	HAJDIN BERISHA, AGRON HAJDARI, BEKIM SAMADRAXHA	

PART THREE: THE INTENDED AND ATTAINED CURRICULUM..... 155

(10)	DIGITAL COMPETENCIES IN SOCIAL SCIENCES – A PILOT STUDY From Design to Practice: Teaching Approaches in the HOMO DIGITALIS Project	157
	VALBONA NATHANAILI, BLERTA DRENOFCI (ÇANI), KONSTANTINOS GIAKOU MIS, DUŠANKA BOŠKOVIĆ, ARBANA KADRIU, ANISA DUKA	
(11)	ENHANCING LEARNING THROUGH MULTIMEDIA CULTURAL HERITAGE APPLICATIONS Managing Cognitive Load.....	177
	MERIMA MUSLIĆ, DUŠANKA BOŠKOVIĆ, VENSADA OKANOVIĆ, SELMA RIZVIĆ	
(12)	INTEGRATING DIGITAL COMPETENCIES INTO HIGHER EDUCATION CURRICULA A Case Study from LOGOS University College within the HOMO DIGITALIS Project	193
	JUNA MUÇA, ANXHELA LASKA, ELPINIQI MERKURI, EDVALDO BEGOTARAJ	

	CONFERENCE SUMMARY AND REFLECTIONS.....	209
	VALBONA NATHANAILI	

	INDEX OF AUTHORS AND PAPER NUMBERS	211
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Konstantinos Giakoumis is Professor of History, Arts and Didactics at LOGOS University College, where he also leads the Faculty of Humanities and Linguistic Communication. He is a doctoral degree (Ph.D.) holder PhD from the University of Birmingham, serves on the international advisory board of Art Readings (Institute of Art Studies, Bulgarian Academy of Sciences) and reviews for the Serbian Academy of Sciences, the University of Crete, and international journals including Speculum (University of Chicago Press), the Journal of Religious History (Wiley), and Politics, Religion & Ideology (Taylor & Francis). He has also served as coordinator of a number of ERASMUS+ CBHE projects (Roaming, Homo Digitalis, DiLanEdu-WB). For a Marie Curie fellowship application in 2018 he received the European Commission's Seal of Excellence. A prolific scholar, his work appears in leading journals such as Byzantine and Modern Greek Studies (Cambridge), Turkish Historical Review (Brill), and the International Journal of Cultural Policy (Taylor & Francis). His most recent book examines the Codex of the Diocese/Metropolis of Dryinoupolis and Gjirokastra (1760–1858), published by LOGOS University College Press.

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Dr. Elona Karafili is an expert in the field of economic development. She is a lecturer and researcher at POLIS University, Tirana, Albania since 2007. She holds a PhD in Urban Planning from Ferrara University and Polis University. Elona currently holds the position of the Deputy Rector of POLIS University. Her main topics of interest and expertise

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DUŠANKA BOŠKOVIĆ

University of Sarajevo

Vice Rector for Quality at the University of Sarajevo and a Professor at the Faculty of Electrical Engineering. Her research interests and teaching are focused on software engineering in biomedical and cognitive domains. She is highly motivated to learn about problem domains and committed to achieving a high level of user experience. In addition to teaching and research, she is engaged in various activities aimed at improving education in Bosnia and Herzegovina, especially through promoting student-centered and outcome-based learning and using software as educational content.

BLERTA DRENOFCI (CANI)

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Dr. Drenofci has devoted her efforts for last 20 years at the Albanian Disability Rights Foundation, to the activities in advocacy and lobbying for disability related policy and legislation adoption and implementation and offering of supportive services for people in need throughout the country. She is an expert in the area of social policies and collaborator in the formulation of policy framework for people with disabilities in Albania. She has directed ADRF contribution in several important legal initiatives. ADRF is acknowledged as the pioneer and leader of human rights-based approach to disability and it is one in the few organizations that offer models of supportive services like mobility means, supported employment, free legal aid for people in need in Albania. Blerta has an PhD in Social Sciences and has an academic background, being a teacher of University of Tirana since 2013. She has been the leader and the author of a lot of studies in the field of social policies in and outside the country. She has been involved as a consultant in the research and policy development by several international agencies. During the years 2014-2022, she has been involved in the development of the new reform for the assessment of disability in Albania, based on international standards.

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Arbana Kadriu is a Full Professor of Computer Science at the Faculty of Contemporary Sciences and Technologies, South East European University (SEEU) in Tetovo, North Macedonia. She earned her PhD in Computer Science from Ss. Cyril and Methodius

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DIGITAL COMPETENCIES IN HIGHER EDUCATION

TRENDS, CHALLENGES AND PERSPECTIVES

SEPTEMBER 18, 2025

Hosted by LOGOS University College

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SUMMARY OF ACTIVITIES

INTERNATIONAL SCIENTIFIC CONFERENCE DIGITAL COMPETENCIES IN HIGHER EDUCATION

Trends, Challenges and Perspectives

Logos University College, Tirana, Albania

Thursday, September 18, 2025

9.00-9.30	Registration
9.30-10.00	Open remarks
	Ilia Ninka, rector, LOGOS University College
	Gertiola Cepani, Director of Labour Market Services at 'National Employment and Skills Agency'
	Konstantinos Giakoumis, HOMO DIGITALIS Project Coordinator

TOPIC

AUTHOR(s)

OPPONENT

FIRST CONFERENCE TRACK			
Digital Competences in Higher Education and the Labour Market			
10.00-10.20	1. The Impact of Digital Transformation on Human Resource Management. Case Study: Albanian Universities During the Pandemic Period	Emira Spahaj, Edisela Mena, Malvina Hysa, Blerta Avdia	Elona Karafili
10.20-10.40	2. Barriers and Opportunities in Albanian Higher Education for Students with Disabilities: A Mixed-Methods Analysis	Blerta Drenofci (Çani), Valbona Nathanaili	Merima Muslić
10.40-11.00	3. The Digital Employment Gap in Albania: Challenges and Strategies for Higher Education	Gertjana Hasalla	Arberore Bicaj
SECOND CONFERENCE TRACK			
Institutional Strategies and Policy Development			
11.00-11.20	4. Integrated Technical Assessment and Restoration Strategy for the "Topulli" House: Restoration Strategies, Revitalization Pathways and Advanced Digital Technologies	Nikolla Vesho, Panagiotis Kyriatsis, Ajla Gjoka, Lumturi Haska, Sara Ciba, Migena Gjoni, Ardis Duka, Romir Mazari	Konstantinos Giakoumis
11.20-11.40	5. The Role of MOOCs and Open Educational Resources in Higher Education: Applications in Teaching Medicine and Laboratory Science	Dorina Minxuri	Valbona Nathanaili

11.40 -12.00	6. Language Technologies and Digital Humanities for Low-Resource Languages and Communities	Arbana Kadriu, Lejla Abazi-Bexheti	Blerta Drenofci (Çani)
12.00-12.20	Coffee break		
12.20-12.40	7. The Cognitive–Digital Turn in Higher Education. <i>A Longitudinal Analysis of AI Engagement in an Architectural Design Studio</i>	Fulvio Papadhopulli, Megi Tafaj	Nikolaos Avouris
12.40-13.00	8. Defining a Strategic Action Plan for AI in Higher Education	Nikolaos Avouris	Valbona Nathaniali
13.00-13.20	9. Institutional Policies and Strategic Directions for Advancing Digital Competencies in Higher Education	Hajdin Berisha, Agron Hajdari, Bekim Samadraxha	Flora Krasniqi
THIRD CONFERENCE TRACK The intended and attained curriculum			
13.20-13.40	10. Digital Competencies in Social Sciences – A Pilot Study. <i>From Design to Practice: Teaching Approaches in the HOMO DIGITALIS Project</i>	Valbona Nathanaili, Blerta Drenofci (Çani), Konstantinos Giakoumis, Dušanka Bošković, Arbana Kadriu, Anisa Duka	Bujar Gallopeni
13.40-14.00	11. Enhancing Learning through Multimedia Cultural Heritage Applications: Managing Cognitive Load	Merima Muslić, Dušanka Bošković, Vensada Okanović, Selma Rizvić	Blerta Avdia
14.00-14.20	12. Integrating Digital Competencies into Higher Education Curricula. <i>A Case Study from LOGOS University College within the Homo Digitalis Project</i>	Juna Muça, Anxhela Laska, Elpiniqi Merkuri, Edvaldo Begotaraj	Emira Spahaj
14.20-15.40	Lunch		
20.00-22.00	Social Dinner and Awarding of Certificates of Participation and Presentation of Papers		

PART ONE:
DIGITAL COMPETENCES
IN HIGHER EDUCATION
AND THE LABOUR MARKET

DIGITAL COMPETENCIES IN SOCIAL SCIENCES – A PILOT STUDY

From Design to Practice: Teaching Approaches
in the HOMO DIGITALIS Project

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Abstract

This paper was prepared within the framework of the Homo Digitalis Project, a collaborative regional initiative advancing the digital transformation of Higher Education in the Western Balkans. The first aim of this study is to evaluate the extent to which academic staff of social sciences of several HEIs from Albania, Kosovo, and Bosnia and Herzegovina – all partners in this project – are prepared to integrate digital competencies into their syllabi in the social sciences. This was investigated through a structured questionnaire. Notably, the instructors involved in the study were selected based on their willingness to participate in the curricular redesign and engage with digital education practices. The second aim is to evaluate how the digital competencies have been integrated into the revised and delivered courses during the 2024–2025 academic year at LOGOS University College, the leading partner of this project. A mixed-methods approach was employed, combining a structured questionnaire (n = 14), a focus group, and a score matrix to evaluate both instructor readiness and the extent to which digital competencies were integrated into revised courses. This initiative represents a valuable starting point for introducing digital competencies in a structured and organized manner, aligned with the study program. Furthermore, following the piloting phase with university colleagues, the aim is to expand the scope of this study to include all partner institutions involved in the project. One key recommendation is to revise the formulation of generic and specific competencies, and to ensure they are identified in cooperation with educational institutions, agencies, or companies that serve as the Faculty's partners in programme development.

Keywords: Digital competencies, Homo Digitalis, Western Balkan, Social Sciences, Higher Education Curricula

ABOUT THE AUTHORS

VALBONA NATHANAILI

Dr. Nathanaili is currently a lecturer and researcher in the Department of Pedagogy and Psychology, LOGOS University College, Tirana, Albania, with an experience of more than 35 years in the field of academia and publication. She is a Bachelor in physics and a doctoral degree holders in the science of pedagogy, both from University of Tirana. Major areas of research over the last few years are the politics and reforms in Albanian Education System, methodology of teaching science, university pedagogy, the future of schooling and Recognition and Accreditation of Prior Learning gained after flexible learning paths.

She is analyst, writers and contributor for different periodic Albanian newspaper and television outlets. Nathanaili, in collaboration with different HEIs, has been initiator and supporter of STEM national campaigns, to encourage girls to pursue careers in science, technology, engineering and math fields and promote women in those fields. Dr. Nathanaili has extensive experience in designing and directing research and capacity building projects.

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KONSTANTINOS GIAKOURIS

Konstantinos Giakouris is Professor of History, Arts and Didactics at LOGOS University College, where he also leads the Faculty of Humanities and Linguistic Communication. He is a doctoral degree (Ph.D.) holder PhD from the University of Birmingham, serves on the international advisory board of Art Readings (Institute of Art Studies, Bulgarian Academy of Sciences) and reviews for the Serbian Academy of Sciences, the University of Crete, and international journals including *Speculum* (University of Chicago Press), the *Journal of Religious History* (Wiley), and *Politics, Religion & Ideology* (Taylor & Francis). He has also served as coordinator of a number of ERASMUS+ CBHE projects (Roaming, Homo Digitalis, DiLanEdu-WB). For a Marie Curie fellowship application in 2018 he received the European Commission's Seal of Excellence. A prolific scholar, his work appears in leading journals such as *Byzantine and Modern Greek Studies* (Cambridge), *Turkish Historical Review* (Brill), and the *International Journal of Cultural Policy* (Taylor & Francis). His most recent book examines the Codex of the Diocese/Metropolis of Dryinoupolis and Gjirokastra (1760–1858), published by LOGOS University College Press.

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Anisa Duka is currently the Head of Student Affairs and Career Counseling Office at LOGOS University College. She graduated from the Faculty of Social Sciences, University of Tirana. During 2010-2012, she completed the Master of Sciences program in Teaching for Social Sciences, and in 2019, she obtained a Master of Science in Business Administration (MBA). Throughout her career, MSc. Anisa Duka has worked in various educational institutions. She served as a lecturer in the Faculty of Social Sciences at the University of Tirana. She has gained professional experience in management, communication, and student affairs. She has held positions as a specialist, head of office, and director in several higher education institutions, where she planned and organized activities in these fields. Furthermore, MSc. Anisa Duka has actively pursued professional and research development. She has participated in numerous seminars, conferences, and scientific trainings focused on addressing social issues within society.

INTRODUCTION

Recognizing the increasing importance of digital competencies in modern education, the HOMO DIGITALIS Project supports the integration of digital tools and pedagogies into academic curricula. Its primary objective is to build the digital capacity of both academic staff and students, thereby enhancing teaching quality, promoting student employability, and strengthening institutional innovation. Ultimately, this document aims not only to analyse the outcomes of updated course syllabuses, but also to contribute to a broader regional understanding of digital transformation in the framework of HOMO DIGITALIS Project.

Although the necessity to integrate digital tools in the humanities and education has been felt in the Western Balkans, as elsewhere, there is a scarcity of providers offering the expert knowledge, skills and competences necessary to develop properly trained professionals to engage technology for the purpose of devising creative solutions in a range of humanities and education application areas at cultural heritage institutions, schools, public agencies, international organisations and private companies (Homo Digitalis Project).

LITERATURE REVIEW

Professional Digital Competence (PDC) is an emerging and broader type of teacher digital competence that is inclusive of all aspects of being a teacher in schooling contexts and education systems where digital technologies are embedded (Starkey, 2020). Professional Digital Competence is increasingly framed as a situated capability that integrates pedagogy, classroom management in digital environments, and the wider professional work of teaching - rather than a set of generic ICT skills (Starkey & Yates, 2020; Lund *et al.*, 2014). Recent reviews note that the literature has expanded rapidly, but with uneven conceptual clarity, and they argue for holistic, practice-grounded models of PDC (Skantz-Åberg, Lantz-Andersson, & Williams, 2022; Peters *et al.*, 2022).

Within this stream, Falloon (2020) advances a Teacher Digital Competency framework that moves beyond tool proficiency to include ethical, safe, and productive participation in digitally mediated learning ecologies, while Castañeda and Selwyn (2018) caution that “digitization” of education reshapes purposes and practices in ways that exceed mere technology integration. Operationally, the DigCompEdu framework synthesizes educator-specific digital competences into 22 descriptors across six areas and has been used to develop validated self-assessment instruments for teachers (Redecker & Punie, 2017; Ghomi & Redecker, 2019). Empirical work shows that PDC develops through authentic practice, mentoring, and collaborative inquiry, yet remains uneven among early-career teachers and student teachers (Masoumi & Bourbour, 2024; Quast *et al.*, 2023).

The EU’s agenda of building a “Europe fit for the digital age” has extended to its relations with the Western Balkans, where gaps in digital literacy among both citizens and public administration staff remain a persistent challenge (European DIGITAL SME Alliance). In the Western Balkans, comparative analyses document persistent

gaps in population-level digital skills relative to EU averages, underscoring the system conditions within which teachers enact PDC (Levkov & Kitanovikj, 2024). Complementary implementation research with SELFIE for TEACHERS in Albania and North Macedonia points to the need for targeted professional development and policy support aligned with competency frameworks (Economou *et al.*, 2024).

METHODOLOGY

This study adopts a two-phased mixed-methods design, implemented within the framework of HOMO DIGITALIS project aimed at integrating digital competencies into university-level teaching.

Research Questions

- What was the level of the Instructor preparedness? *Data source:* a structured questionnaire administered to academic staff.
- What was the level of the integration of digital competencies at each of the elements of the revised syllabus? *Data source:* seven revised syllabi from five study programs at Logos University College.
- What were the challenges faced by instructors during the process of integrating digital competencies and implementing the revised course? *Data source:* a focus group with 7 academic staff who revised their syllabi, supplemented by insights from core HOMO DIGITALIS project team members (3 members), who contributed with project-level insights and coordination experience.

Phase 1: Before intervention

As part of a structured intervention within the framework of the project, a selected group of university instructors teaching in social sciences faculties, revised their course syllabi to integrate digital competencies, drawing on the Digital Competence of Educators framework developed by Redecker and Punie (2017). The courses were chosen based on disciplinary diversity, relevance to digital transformation goals, and instructor willingness to participate, but also based on the subject expertise and the relevance of their courses to project objectives, with guidance and support provided by the project team.

For this phase, the main aim is to evaluate instructors' perspectives on the revised course syllabuses, focusing on their level of preparedness for the revision process, their collaboration with colleagues and external partners, and their reflections on the quality and relevance of the revisions - particularly in terms of digital competency integration. Part of this phase was the collection of qualitative data was through a focus groups with academic staff of LOGOS University College. The discussion was organised online, to explore experiences with the process of updated curricula, perceived benefits and challenges, and institutional support mechanisms. The questions were designed to probe the same themes covered in the quantitative tools, enabling triangulation of data sources.

Phase 2: After intervention

Following the intervention—implemented during the spring semester of the 2024–2025 academic year—the evaluation phase began. To assess the extent to which digital competencies were integrated into the revised course syllabi, we developed a structured rubric aligned with the core elements of a syllabus. The instrument focuses on three components: competencies, course content, and assessment methods. Each syllabus was evaluated across these three dimensions using a Likert-type scale from 0 (not present) to 4 (fully integrated), providing a clear snapshot of the current state of syllabus revisions within the project framework (see Annex 3). The rubric is implemented in a customized Excel spreadsheet, allowing evaluators to select scores from a drop-down menu and enter qualitative justifications for each score directly adjacent to the numerical rating. This dual format (quantitative + qualitative) ensures: Triangulated analysis, combining measurable indicators with contextual reasoning, Inter-rater reliability, through structured scoring guidance, Comparability, by automatically calculating total scores per syllabus (ranging from 0 to 12). This evaluation tool was applied to all revised syllabi (initially 8, with plans for expansion to 37+), forming the foundation for the quantitative content analysis of the project's curriculum intervention.

Sampling

Sampling was purposive at the instructor level before the intervention phase. At a further stage, the research team decided to exclude all courses with a primary focus on teaching technology (ICT, computer science, or digital education). The intervention focused exclusively on courses from non-technological disciplines, to better assess how digital competencies are integrated into general subject teaching practices and in line with one of the project's core objectives - to explore how digital competencies are integrated across social sciences.

To explore how academic staff experienced the integration of digital competencies into higher education curricula, an instructor questionnaire was developed within the framework of the Homo Digitalis project.

The questionnaire

The questionnaire (see Annex 1) clusters into two coherent constructs: Individual Readiness (familiarity, preparedness, guidance) and Collaborative Support (collaboration, idea-sharing). Together, they explain how digital competencies are integrated at both the personal and the institutional level.

The instrument was administered to lecturers directly involved in syllabus revision and was structured around three key dimensions: readiness, collaboration, and external engagement. The first section gathered demographic information, specifically years of teaching experience, to contextualize responses; the second dimension, Readiness, focused on instructors' familiarity with digital competencies prior to the project and their perceived preparedness to embed these skills into revised syllabi; the third dimension, Collaboration

and Support, examined collegial exchange and whether such cooperation improved the quality of the revisions. Finally, the questionnaire asked about External Engagement, addressing whether partners such as industry, civil society, universities, or pre-university institutions were consulted. Overall, the instrument provides insight into how academic staff perceive their own capacities, the support they received, and the broader network involved in curriculum transformation.

LIMITATIONS OF THE PILOT STUDY

As a pilot phase, the study is exploratory in nature and subject to important limitations. The questionnaire was completed by 14 instructors, while the focus group included 7 participants. Although this small sample size does not allow for broad generalizations, it provides valuable preliminary insights into instructors' preparedness, institutional support, and the challenges of integrating digital competencies into non-technological disciplines.

RESULTS

First research question: What was the level of the Instructor preparedness?

For the purposes of this study, a questionnaire consisting of seven questions was designed to evaluate instructors' self-efficacy in digital skills. Six of these items were measured using a five-point Likert scale, requiring respondents to provide an evaluative rating. Question 7, by contrast, was a dichotomous item with yes/no response options; in cases where respondents answered yes, they were additionally asked to select from a predefined list of offerings. The Cronbach's Alpha value for all items was observed as 0.83. The questionnaire was administered to 14 academic staff members (respondents) from partner universities in the Western Balkans, specifically in Albania, Kosovo, North Macedonia, and Bosnia and Herzegovina. It was distributed online via Google Forms, and the data collection period extended over two months during the spring semester of the 2024–2025 academic year (see Annex 4). According to the project's design, by this stage the number of syllabi integrating digital competencies was expected to reach 38. However, as in several partner institutions the procedures for syllabus revision required considerable time, the present dataset primarily reflects the staff perspectives from three higher education institutions from Albania, Kosovo and Bosnia and Herzegovina. Nonetheless, this outcome still represents a significant level of achievement relative to the implementation timeline. Fig. 1 presents the demographic data regarding respondents' years of teaching experience. Among the 14 academic staff members who completed the questionnaire, the largest group (50%) reported between 11 and 20 years of teaching experience. Early-career instructors with 4–10 years of experience made up 28.6% of the sample, while those with 0–3 years accounted for 14.3%. Only a small proportion of respondents (7.1%) reported more than 21 years of experience. This distribution indicates that the majority of participants were mid-career academics, with substantial professional experience, offering a balanced perspective between newer and more senior staff.

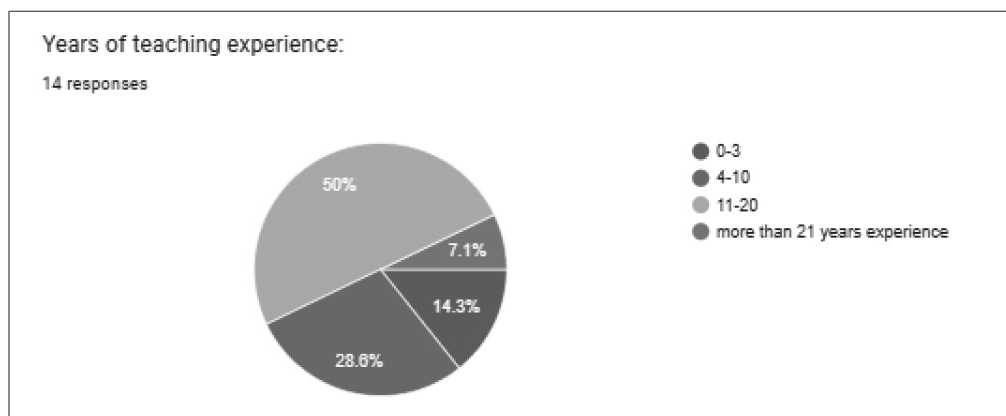


Fig. 1 Demographic data regarding respondents' years of teaching experience

Early-career academics (0–3 years) reported the highest levels of familiarity and preparedness, while staff with 4–10 years of experience also showed strong preparedness but slightly lower training scores. The largest group (11–20 years) rated themselves moderately familiar and prepared, despite receiving training comparable to other groups. Notably, the most senior staff (21+ years) reported the lowest preparedness, even though they rated the training they received as adequate. These results highlight a generational gap, with early-career academics driving digital integration, while mid- and late-career staff may require additional tailored support to strengthen their digital confidence and application in curricula.

Fig. 2 presents the responses of instructors regarding their familiarity with digital competencies before the syllabus revision process. The majority of respondents (42.9%) rated their familiarity as moderate, while 28.6% considered themselves to have a very high

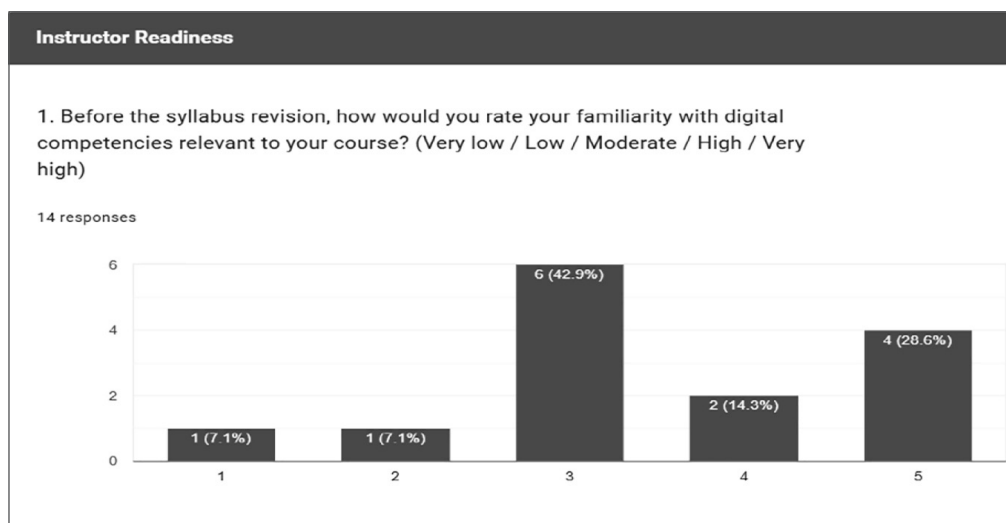


Fig. 2. Instructor Readiness Before Syllabus Revision

level of familiarity. Smaller groups of instructors assessed their readiness as high (14.3%), low (7.1%), or very low (7.1%). These results suggest that, prior to the curriculum revision, most participants were situated at a middle level of digital competence, with a notable proportion already reporting strong confidence. This distribution indicates both a solid basis for integrating digital skills into syllabi and the presence of diverse levels of preparedness among academic staff. Other statistical data: Count (N): 14; Mean: 3.50; Median: 3.0.

While Fig. 3 shows that most instructors felt adequately prepared to integrate digital competencies into their syllabi (64.3% either agreed or strongly agreed), the concept of preparedness should be interpreted more broadly. Technical familiarity with digital competencies (see Fig. 2) appears to have translated into practical readiness for syllabus revision, but successful integration also depends on pedagogical preparedness. Pedagogical preparedness involves the ability to redesign learning outcomes, adapt teaching strategies, and align assessment practices to make effective use of digital tools. Instructors who rated themselves less confident may not only have lacked technical skills but also the didactic strategies required to embed digital competencies meaningfully into course delivery. This suggests that professional development should go beyond technical training to include pedagogical models for digital integration, such as blended learning design, student-centered use of technology, and digital assessment practices. Thus, while Fig. 3 confirms encouraging levels of self-reported readiness, the results should be interpreted in light of the broader teaching mission: digital competence is valuable only when paired with pedagogical intentionality.

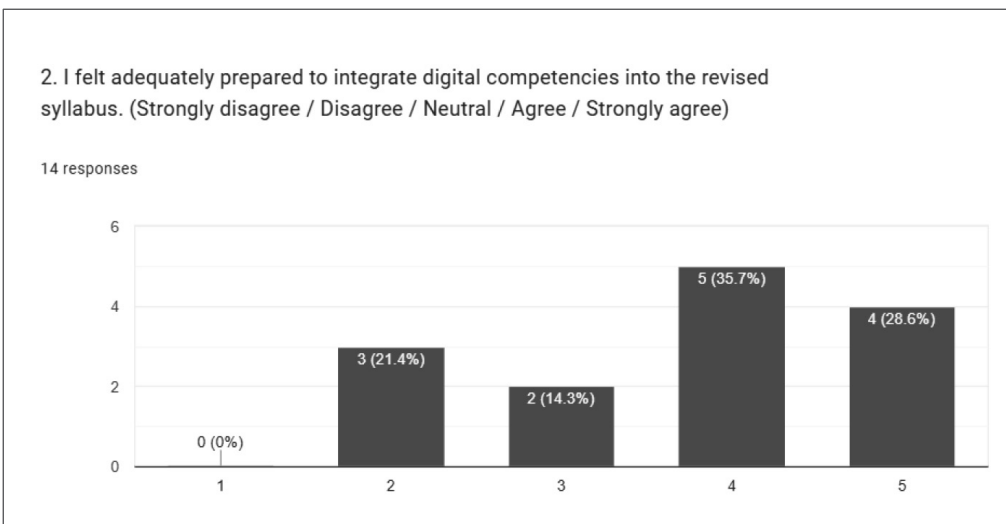


Fig. 3. Instructor preparedness to integrate digital competencies (distribution of responses to this statement: N=14)

The data highlight the importance of supporting staff in both areas, ensuring that integration of digital skills is not simply a technical exercise but also an educational transformation. The responses shown in Fig. 3, where most instructors felt prepared

to integrate digital competencies into their teaching, should be considered not only as a reflection of technical readiness but also of pedagogical preparedness. Integration of digital tools is effective only when instructors are able to translate them into teaching strategies, learning activities, and assessment practices that align with educational goals. In this respect, the findings are directly connected to the experience of the MAGNET project, implemented at the same partner HEIs in the Western Balkans. MAGNET's primary emphasis was on strengthening pedagogy in higher education, particularly through professional development, mobility, and collaborative learning.

By exposing staff to innovative pedagogical models and encouraging reflection on teaching practices, MAGNET helped create an enabling environment in which digital competencies could later be embedded more meaningfully into curricula. Thus, the sense of preparedness reported by the instructors in this study can be understood as the cumulative effect of capacity-building interventions across projects. The current project builds upon the pedagogical foundations laid by MAGNET, highlighting how interlinked initiatives reinforce each other to foster sustainable change in higher education teaching practices across the region.

Fig. 4 shows how instructors evaluated the adequacy of the guidance and training they received for syllabus revision. The majority of respondents reported positive experiences: 35.7% rated the support as *high* and an equal 35.7% as *very high*. A further 14.3% rated the training as *moderate*. By contrast, smaller groups expressed dissatisfaction, with 7.1% reporting *very low* and another 7.1% *low* levels of support.

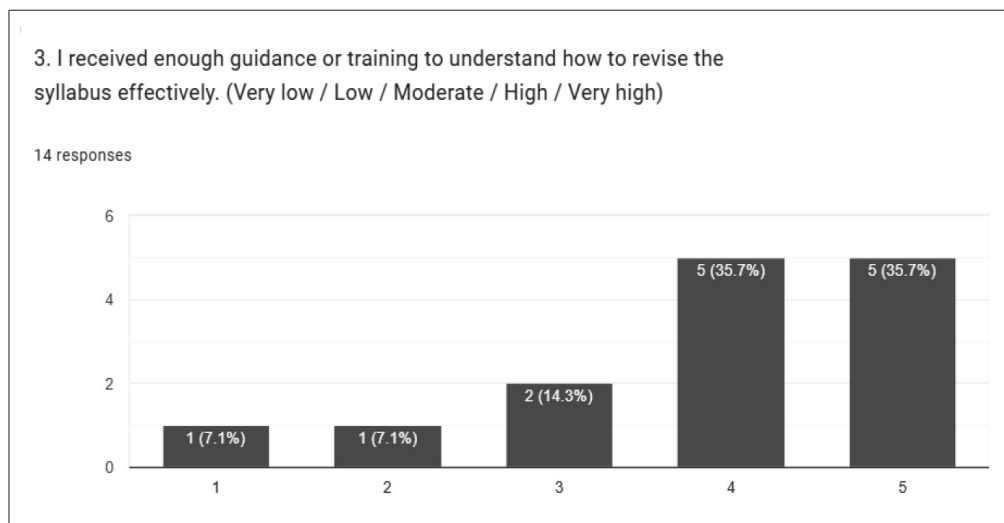


Fig. 4. Guidance and Training for Syllabus Revision
(distribution of responses to this statement: N=14)

Fig. 5 presents instructors' responses regarding collaboration during the syllabus revision process. A large proportion of respondents rated their collaboration at the moderate level (42.9%), while 28.6% reported high collaboration and another 28.6% reported *very*

high collaboration. Importantly, no respondents indicated *very low* or *low* collaboration, suggesting that some level of collegial exchange was universally present.

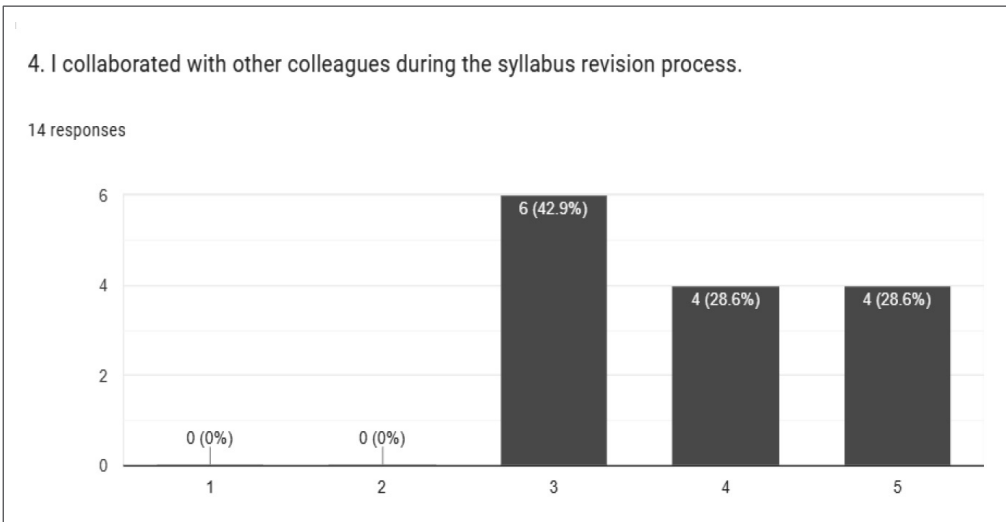


Fig. 5. Collaboration with Colleagues During the Syllabus Revision Process
(distribution of responses to this statement: N=14)

Fig. 6 shows how instructors evaluated the impact of collegial exchange on the quality of syllabus revisions. A combined 71.4% of respondents rated the effect positively, with 35.7% selecting *agree* and another 35.7% selecting *strongly agree*. A smaller group (28.6%) remained *neutral*, while no respondents disagreed or strongly disagreed.

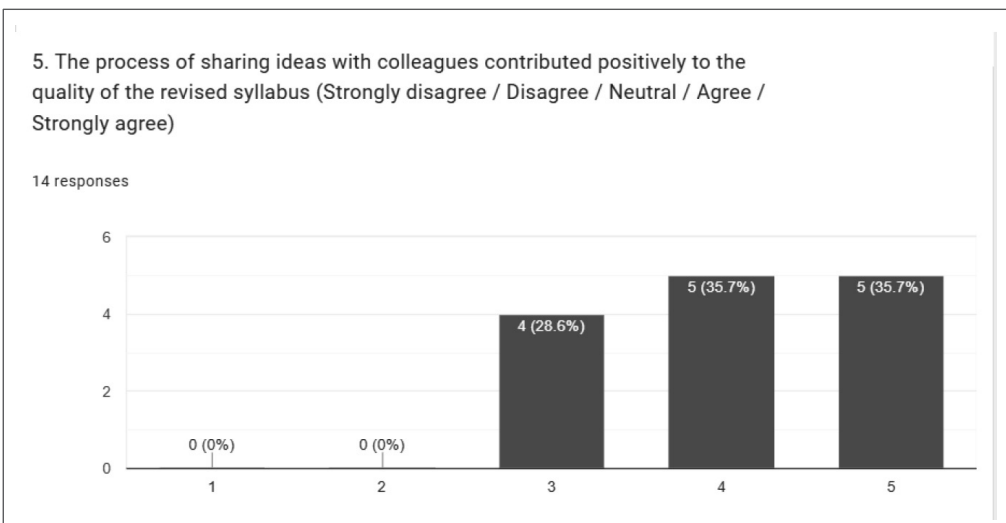


Fig. 6. Perceived Contribution of Sharing Ideas with Colleagues to Syllabus Quality
(distribution of responses: N = 14)

Fig. 7 presents data on the extent to which instructors involved external partners during syllabus revision. Out of 14 respondents, 64.3 % reported engaging external partners, while 35.7 % did not. Among the nine respondents who collaborated externally, the partnerships were distributed across several stakeholder groups: industry/business (33.3 %), educational institutions at pre-university level (33.3 %), civil society/NGOs (22.2 %), and other universities (11.1 %).

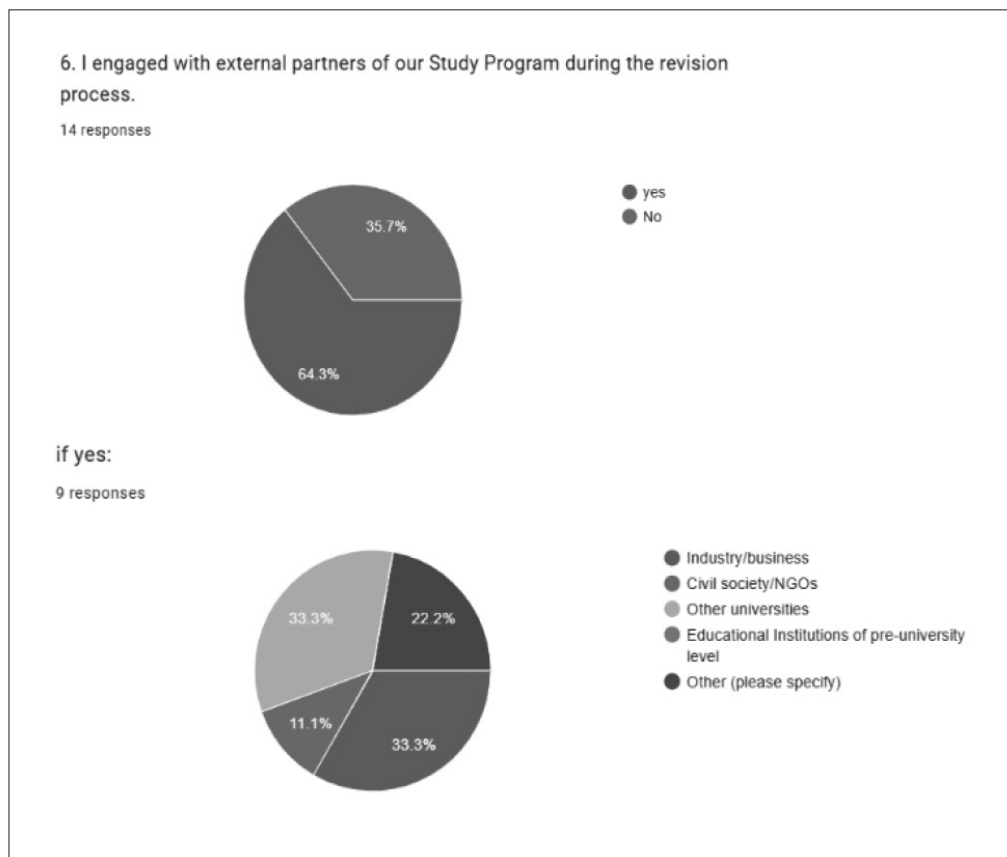


Fig. 7. Engagement with External Partners During the Syllabus Revision Process
(distribution of responses to this statement: N=14)

Second research question: What was the level of the integration of digital competencies at each of the elements of the revised syllabus?

The analysis revealed that instructors at LOGOS University College often did not adequately reflect digital resources in their syllabi. In the revised syllabuses, the integration of competencies shows a disconnection between generic and specific skills. While generic competencies are broadly defined, their translation into discipline-related specific competencies is inconsistent. Although references to digital competencies were sometimes included in generic or specific competencies, these were rarely translated into course

content and never into assessment methods. Redecker and Punie (2017, p. 26) highlight assessment strategies using digital technologies for formative and summative assessment; however, none of these strategies are included in any of the revised social sciences curricula. This absence points to a significant gap and underscores the need for future curricular development to embed digital assessment practices as an integral part of teaching and learning. Addressing this absence should be a priority for future curricular development, ensuring that digital assessment practices become an integral part of teaching and learning in line with international best practices.

Third research question: What was the challenges of instructor during the process of integration of digital competencies and the implementation of revised course?

Qualitative Findings from the Focus Group

In addition to the survey results, a focus group with academic staff from the HEI highlighted several pressing challenges in the integration of digital competencies.

- **Students' Limited Preparedness**

Participants noted that many students are insufficiently prepared for digital learning. This challenge is particularly pronounced among those coming from low socio-economic backgrounds or remote areas, where access to reliable infrastructure and prior exposure to digital tools is limited.

- **Working Students and Time Constraints**

In several study programs, students simultaneously work and attend higher education. In such contexts, the use of digital applications and online platforms often leads to early disengagement. Balancing professional responsibilities with academic tasks leaves little time to develop new digital competencies outside of the classroom.

- **Limited Access to Equipment**

A recurring problem identified was the lack of personal devices. Many students do not own a suitable laptop or computer and often rely on outdated equipment or even borrow devices from family members (e.g., their children's laptops). As a result, digital tools are mainly used only during in-person classroom hours in institutional auditoriums, limiting their integration into independent study.

- **Need for Instructor Training**

Staff also stressed the importance of further training for instructors. While many are motivated to adopt digital tools, they lack the structured opportunities and institutional support to update their competencies, which hinders the effective transfer of digital skills to students.

- **Discrepancy Between Discourse and Syllabus Integration**

A significant concern was the disconnect between what instructors claim about integrating digital competencies and the actual content of their syllabi. While instructors frequently articulate the importance of digitalization, this emphasis is not always reflected in course design, learning outcomes, or assessment strategies. This inconsistency weakens the institutional impact of digitalization efforts.

DISCUSSIONS AND CONCLUSIONS

The study examined the readiness of academic staff in the Western Balkans to integrate digital competencies into teaching. The questionnaire included six Likert-scale items and one conditional yes/no item, enabling a structured evaluation of attitudes, preparedness, and institutional practices. Reliability analysis confirmed internal consistency of the scale (Cronbach's $\alpha = .82$), demonstrating that the items consistently measured perceptions of digital readiness. Results show that academic staff broadly recognize the importance of digital competencies but differ in their level of preparedness. While some report confidence and experience in using digital tools - supported by training and access to infrastructure - others remain at an initial phase of adoption. Although these responses reflect individual perspectives, they indirectly signal the varying levels of institutional support across HEIs.

When the demographic distribution (see Fig. 1) is compared with instructors' self-assessment of digital competencies before syllabus revision (see Fig. 2), an interesting pattern emerges. The majority of respondents were mid-career academics with 11–20 years of teaching experience (50%). This same group also represented the largest share of those who rated their digital competence as moderate or high. By contrast, early-career instructors in some years (0–3 years and 4–10 years combined, 43% of respondents) were more evenly distributed across the lower and higher ends of the scale, with some reporting very low familiarity and others very high familiarity. Senior staff (21+ years, 7.1%) were underrepresented and tended to place themselves at the lower end of readiness.

This comparison suggests that mid-career instructors, who form the core of the teaching body, entered the revision process with a balanced but cautious confidence in their digital competencies. Early-career academics demonstrated more polarized results, reflecting both stronger digital skills among younger staff and gaps in training for some. Overall, the data highlight the need for differentiated professional development strategies that support both less experienced and senior staff while consolidating the capacities of the mid-career majority.

Correlation analysis confirmed notable differences between individual and collaborative aspects of digital competence. A very strong positive correlation was found between Item "Before the syllabus revision, how would you rate your familiarity with digital competencies relevant to your course?" and Item "I felt adequately prepared to integrate digital competencies into the revised syllabus" ($r = 0.88, p < .001$), indicating that academic staff who reported higher confidence in one individual skill also tended to rate themselves highly in the other. By contrast, the correlation between Item "I collaborated with other colleagues during the syllabus revision process" and Item "I felt adequately prepared to integrate digital competencies into the revised syllabus" was weaker and statistically non-significant ($r = 0.35, p = .23$), suggesting that collaboration with colleagues does not strongly align with individual digital preparedness. These results highlight that, within the current context, staff perceptions of digital readiness are shaped more by individual competencies than by collaborative practices, pointing to the need for institutions to better integrate teamwork and peer-support structures into digital capacity building.

The focus group findings resonate with the survey correlations: individual competencies appear stronger than collaborative practices, but both students and staff face structural barriers (socio-economic inequalities, time constraints, equipment shortages). Moreover, the gap between discourse and practice confirms that institutional strategies for digitalization require not only personal motivation but also a consistent curricular framework. Together, the results suggest that policy interventions should address both sides: strengthening individual staff training and ensuring systemic support for students to reduce digital divides.

In the revised courses, digital competencies are mentioned only as a sub-element within broader categories of competencies, rather than being recognized as a core transversal concept. This absence of explicit framing hinders their systematic development—from generic awareness, such as digital literacy, online communication, and ethical use, to discipline-specific applications, including subject-relevant tools, research databases, data visualization, and digital collaboration platforms.

The HOMO DIGITALIS project and its initiative to integrate digital competencies into the social sciences curricula represent a valuable starting point for embedding such skills in higher education. However, this process must be carried out in a structured and organized manner, fully aligned with study programs. Following the piloting phase with university colleagues in Albania and Bosnia and Herzegovina, the project aims to expand the scope of this study to include all partner institutions. A key recommendation is to revise the formulation of generic and specific competencies in the social sciences, ensuring they are interconnected and mutually reinforcing rather than treated as separate educational aims. This process should be undertaken in close cooperation with educational institutions, accreditation agencies, and employers, who serve as partners in the development of study programs.

HEIs in the Western Balkans are in a transitional stage—motivated to adopt digital competencies but requiring stronger systemic and policy-level support. Institutional policies, targeted training, and adequate infrastructure are key levers of successful integration of digital competencies. Statistical evidence confirms that progress in one dimension (e.g., training) is closely linked to progress in others (e.g., confidence), reinforcing the need for a comprehensive approach. Cross-project collaboration (MAGNET, HOMO DIGITALIS, Erasmus+ initiatives) offers a sustainable platform for scaling up digital transformation in the region. Ultimately, the findings suggest that technology alone is insufficient: pedagogical vision, institutional commitment, and regional cooperation are decisive for long-term impact.

ETHICS STATEMENT

The study was undertaken within the context of Albanian HEIs, with all participants providing written consent and being fully informed of the study's aims and dissemination. The authors safeguarded the confidentiality and privacy of participants in line with research integrity and autonomy. No identifiable data were collected, and there is zero risk of attributing responses to specific individuals. Only the authors had access to participants' data.

The HOMO DIGITALIS project emphasizes equal opportunities, inclusiveness, and respect for diversity as core EU values. Participation in project activities (training, surveys,

piloting, dissemination) is entirely voluntary and based on informed consent. Special care is taken to include and support underrepresented groups in the Western Balkans, including those with limited digital skills, ensuring that no participant is disadvantaged. All procedures are reviewed by the responsible ethics structures of partner institutions.

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ANNEX 1 INSTRUCTOR QUESTIONNAIRE

Project: *HOMO DIGITALIS – Bridging the Digital Humanities
and Educational Media Divide in the West Balkans*

Target group: Lecturers who have revised the syllabus

Dear Instructor,

The purpose of this questionnaire is to gather your perspective on the revised course syllabus you were involved with. We are particularly interested in your level of preparedness during the revision process, any collaboration you had with colleagues or external partners, and your reflections on the quality and relevance of the revisions regarding the integration of digital competencies. Your input is valuable and will help us evaluate and improve future course development efforts. Thank you for your contribution!

Background Information

1. Years of teaching experience: 0-3; 4-10; 11-20; 20+

Section 1: INSTRUCTOR READINESS

2. Before the syllabus revision, how would you rate your familiarity with digital competencies relevant to your course?

Very low Low Moderate High Very high

3. I felt adequately prepared to integrate digital competencies into the revised syllabus.

Strongly disagree Disagree Neutral Agree Strongly agree

4. I received enough guidance or training to understand how to revise the syllabus effectively.

Strongly disagree Disagree Neutral Agree Strongly agree

Section 2: COLLABORATION AND SUPPORT

5. I collaborated with other colleagues during the syllabus revision process.

Not at all To a small extent To some extent To a great extent

6. The process of sharing ideas with colleagues contributed positively to the quality of the revised syllabus.

Strongly disagree Disagree Neutral Agree Strongly agree

7. I engaged with external partners of our Study Program during the revision process.

Yes No

If yes, please specify the type of external partner(s) involved: Industry/business Civil society/NGOs Other universities Educational Institutions of pre-university level Other (please specify): _____

ANNEX 2 COURSES REVISED TO INTEGRATE DIGITAL COMPETENCIES AT LOGOS UNIVERSITY COLLEGE IN THE FRAMEWORK OF HOMO DIGITALIS PROJECT

Level of study	No	Study Program	No	Course	1. Professional Engagement	2. Digital Resources	3. Teaching & Learning	4. Assessment	5. Empowering Learners	6. Facilitating Learners Digital Competence	Total Score	Comments
Bachelor in	I	Teacher Training for Pre-School Education	1	Albanian History								
			2	Digital Education							0	To be excluded
			3	Visual_Arts & Didactics								
	II	Social Work	4	Computer Usage							0	To be excluded
			5	Research Methods								
Master of Science in	III	Greek Language & Civilization	6	Greek Art and ICT								The intervention was planned but not yet implemented during the study phase
	IV	Religious Tourism	7	Geographic information systems in tourism								
	V	Master of Science in Professional Translation	8	Translation of Specific Texts & Terminological Documentation II								

ANNEX 3 DIGITAL RESOURCES IN THE SYLLABUS (SCORING METHOD)

Syllabus element	0 Not Present	1 Implied Only	2 Mentioned Briefly	3 Basic Implementation	4 Fully Integrated
1. Competencies					
2. Course Content					
3. Assessment					

ANNEX 4 INSTRUCTOR QUESTIONNAIRE

	Years of teaching experience:	1. Before the syllabus revision, how would you rate your familiarity with digital competencies relevant to your course?	2. I felt adequately prepared to integrate digital competencies into the revised syllabus	3. I received enough guidance or training to understand how to revise the syllabus effectively	4. I collaborated with other colleagues during the syllabus revision process.	5. The process of sharing ideas with colleagues contributed positively to the quality of the revised syllabus	6. I engaged with external partners of our Study Program during the revision process.	if yes:
1	11-20 years	1	2	2	3	3	No	N/A
2	0-3	5	5	5	5	5	yes	N/A
3	11-20 years	3	3	5	5	5	No	N/A
4	more than 21 years' experience	3	2	4	4	5	yes	Other universities
5	11-20 years	5	5	5	4	4	yes	Other universities
6	4-10 years	3	3	1	3	4	yes	N/A
7	11-20 years	3	4	4	5	5	yes	Industry/business
8	11-20 years	3	4	5	4	4	yes	Industry/business
9	11-20 years	2	2	3	3	3	No	N/A
10	4-10 years	5	5	4	3	3	No	N/A
11	11-20 years	4	4	4	4	4	yes	Industry / business
12	0-3	4	4	3	3	3	yes	Other universities
13	4-10 years	5	5	4	5	5	No	N/A
14	4-10 years	3	4	5	3	4	yes	Civil society/ NGOs

INDEX OF AUTHORS AND PAPER NUMBERS

Abazi-Bexheti, Lejla, 6
Avdia, Blerta, 1
Avouris, Nikolaos, 8
Begotaraj, Edvaldo, 12
Berisha, Hajdin, 9
Bošković, Dušanka, 10, 11
Ciba, Sara, 4
Drenofci (Çani), Blerta, 2, 10
Duka, Anisa, 10
Duka, Ardis, 4
Giakoumis, Konstantinos, 10
Gjoka, Ajla, 4
Gjoni, Migena, 4
Hajdari, Agron, 9
Hasalla, Gertjana, 3
Haska, Lumturi, 4
Hysa, Malvina, 1

Kadriu, Arbana, 6, 10
Kyriatsis, Panagiotis, 4
Laska, Anxhela, 12
Mazari, Romir, 4
Mena, Edisela, 1
Merkuri, Elpiniqi, 12
Minxuri, Dorina, 5
Muça, Juna, 12
Muslić, Merima, 10
Nathanaili, Valbona, 2, 10
Okanović, Vensada, 10
Papadhopulli, Fulvio, 7
Rizvić, Selma, 10
Samadraxha, Bekim, 9
Spahaj, Emira, 1
Tafaj, Megi, 7
Vesho, Nikolla, 4

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- Sarajevo School of Science and Technology
- South East European University
- Otto-Von-Guericke-Universität



The responsible use of Artificial Intelligence is essential for fostering innovation and advancing digital competencies in higher education.

PROF. ILIA NINKA

The use of Artificial Intelligence in higher education is about more than technology. It is about developing university-level strategies and adequate national and regional policies to support digital transformation. Albanian Higher Education Institutions have not yet developed an ethical framework for the use of ChatGPT and similar AI applications.

DR. VALBONA NATHANAILI

The use of Artificial Intelligence in higher education it is aligning universities with the labour market and forging strong partnerships between higher education institutions and employers.

DR. KETI HOXHA

Digital transformation is no longer a future aspiration. It is a current imperative.

PROF. DUŠANKA BOŠKOVIC

... with vision, with cooperation, and with determination, we can ensure that AI serves not just technology, but learning. Not just efficiency, but wisdom.

PROF. NIKOLAOS AVOURIS

Altogether, the case-studies in this volume trace a roadmap for higher education in the Western Balkans that amalgamates tradition and innovation, strives to pursue equitable access to digital opportunities, and positions regional universities as active contributors to Europe's wider digital transformation.

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