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Soft skills gap: aligning higher education with job market needs in Spain

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ABSTRACT

In the dynamic and complex context surrounding the fourth and fifth industrial revolution, dominated by volatility and uncertainty, the importance of communication training, particularly in developing soft skills, is evident. This study advocates for the inclusion of these competencies in higher education and professional training in communication, ensuring they align with the current needs of the Spanish labor market. The gap between the competencies taught and those required by employers is examined to strengthen the connection between academic training at university level and work adaptability. The research examines the gap between the skills taught and those required by employers, aiming to strengthen the connection between university education and workplace adaptability. It emphasizes the need for greater alignment between academic profiles and job demands, proposing comprehensive search and analysis methods for improvement. Additionally, the study underscores the significance of communication training in preparing students for both present and future challenges. Adaptability and continuous updating of soft skills are essential for maintaining professional competitiveness in today's era.

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1. INTRODUCTION

The fourth industrial revolution (4IR) is reshaping the global economy, social norms, policy frameworks, and international relations [1]. Characterized by the convergence of emerging technologies that fundamentally alter human interactions with the environment, 4IR has become a focal point for global leaders and citizens [2]. In this era of hyper-connectivity and advanced automation, society faces unprecedented opportunities alongside significant challenges. These challenges include digital surveillance, disinformation, algorithmic bias, human rights, and ethical governance [3]. Addressing these issues requires new skills and competencies to ensure technological progress is aligned with human values and control. This rapidly evolving landscape demands a deep understanding of the complex interconnections between media, technology, the environment, and human behavior for communication professionals. The dynamic nature of 4IR calls for communication education to evolve accordingly, equipping professionals to navigate an environment marked by complexity, uncertainty, and constant change [4]. Consequently, academic institutions offering communication programs must revise their curricula to address the challenges posed by the 4IR. This involves training professionals who can promote the responsible use of technology and safeguard human well-being in an increasingly automated and interconnected society [5]–[7].

The urgency to research, analyze, and define the new skill sets required in communication education is underscored by the World Economic Forum's future of jobs reports, highlighting the growing need for capabilities to address social challenges and complex systems [8], [9]. As a result, communication education must prioritize the development of critical and creative thinking skills essential for navigating the uncertainties of the digital age [10], [11]. This preparation translates into training professionals who foster critical and responsible communication among citizens and address the ethical and sustainability challenges that arise at the intersection of technology and contemporary society [12], [13].

Given these demands, it is crucial to reassess the role of university communication programs to ensure they align with the evolving expectations of the communication profession [14]. The research presented in this paper focuses on analyzing the development of soft skills in communication education and examining how these skills are integrated into higher education curricula. The primary objective is to evaluate their alignment with 4IR principles, contributing to creating more effective and relevant educational programs that prepare communication students and professionals for the challenges and opportunities of the digital and automated age.

2. RESEARCH METHOD

This study employs a mixed-methods approach to investigate the identification and relevance of soft skills in higher education for communication in Spain and their significance in the labor market. The research integrates qualitative and quantitative data [15]–[17]. The process began with carefully selecting relevant studies based on research quality, result significance, and diversity of sources. Relevant qualitative data were then extracted using coding and categorization techniques, followed by thematic and content analysis to identify patterns, trends, and relationships among key concepts related to soft skills in communication. These insights informed the development of a framework for understanding the role of soft skills in communication education in Spain.

The study and analysis sample (n=5) was derived from the number of universities appearing in the Shanghai ranking that offer communication degrees in Spain (n=12). The selection considered the position in the ranking (<300), as well as the size and characteristics of the university. Geographical diversity was ensured by including universities from different regions of Spain to capture regional differences. The mixed-methods design required a balance between qualitative and quantitative data, ensuring data saturation and representativeness. Statistical power analysis was conducted to confirm that the sample size was adequate to detect meaningful effects and relationships within the data. To enrich the supported references, the research incorporated a variety of high-quality sources, including peer-reviewed academic journals and books, government and institutional reports providing statistical data and trends, and industry reports from professional associations on the demand for soft skills in the job market. This comprehensive methodological approach provides a robust, data-backed view of the current state and opportunities for improvement in teaching soft skills in communication in higher education in Spain, as well as an understanding of labor market demands for these skills.

3. RESULTS AND DISCUSSION

A comprehensive analysis of the white paper on communication (WPC) [18] was conducted to identify the most relevant soft skills within professional profiles shaped by the higher education system. It examines communication studies at Spanish universities, focusing on journalism, audiovisual communication, and advertising and public relations degrees. The WPC remains relevant today despite its publication nearly two decades ago. It laid the groundwork for aligning communication studies with European convergence standards, which continue to shape higher education policy. The emphasis on soft skills and labor market alignment is even more critical now, given the accelerated pace of digital transformation and the challenges posed by the 4IR. In this context, the report recommends restructuring undergraduate programs on communication, ensuring that these programs maintain their independence while addressing both knowledge demands and labor market needs, as advised by the National Agency for Quality Assessment and Accreditation (ANECA).

The analysis of the WPC identifies the professional profiles and competencies required for each communication specialization. These competencies are categorized into four main groups: disciplinary knowledge, professional skills, academic competencies, and other skills, as shown in Table 1. A total of 123 competencies were identified in the analysis, with 69.9% of these grouped under 'professional skills' and 'disciplinary knowledge.' Additionally, 17.1% of the competencies fall under the academic category, while the remaining 13% are classified as 'other skills.' Notably, the 'other skills' category is absent from the journalism specialization's curriculum. While the term "soft skills" is not explicitly mentioned in the WPC, an in-depth analysis was conducted to identify competencies that could be classified as soft skills. We

identified soft skills across the different specializations by comparing the WPC's competency descriptions with the characteristics of soft skills as defined in the literature. Given the variation in terminology, a thorough analysis was conducted to establish affinities and equivalencies between the competencies.

Table 1. Competencies assigned to each specialization of the WPC degrees

Competencies developed	Specializations of the bachelor's degree in communication							
	Journalism		Advertising and public relations		Audiovisual communication		Total	
	Tot	Soft skills	Tot	Soft skills	Tot	Soft skills	Tot	Soft skills
1. Disciplinary knowledge (knowing)	13	0	13	1	14	0	40	1
	30.2%	0.0%	34.2%	9.1%	27.5%	0.0%	32.5%	32.5%
2. Professional skills (know-how)	15	6	8	0	23	0	46	6
	34.9%	50.0%	21.1%	0.0%	45.1%	0.0%	37.4%	37.4%
3. Academic competencies	8	0	6	3	7	4	21	7
	34.9%	50.0%	21.1%	27.3%	13.7%	44.4%	17.1%	17.1%
4. Other skills	0	0	9	7	7	5	16	12
	0.0%	0.0%	23.7%	63.6%	13.7%	55.6%	13.0%	13.0%
Total	36	6	36	11	51	9	123	26
		16.7%		30.6%		17.6%		21.1%

While the term "soft skills" is not explicitly mentioned in the WPC, an in-depth analysis was conducted to identify competencies that could be classified as soft skills. We identified soft skills across the different specializations by comparing the WPC's competency descriptions with the characteristics of soft skills as defined in the literature. Given the variation in terminology, a thorough analysis was conducted to establish affinities and equivalencies between the competencies.

Through this coding process, we identified competencies within the WPC that could be classified as soft skills for each specialization. In the bachelor's degree in audiovisual communication, 17.6% of the identified soft skills are grouped under 'other skills' and 'academic competencies.' Meanwhile, advertising and public relations feature the highest proportion of soft skills, comprising 30.6% of the total competencies for this specialization, with 63.6% of those soft skills categorized as 'other skills.' In contrast, the journalism specialization shows the lowest correspondence, with only six soft skills identified, all within the 'professional competencies' category. The analysis also revealed that most of the soft skills identified in the WPC are related to cognitive and analytical abilities (46.2%), followed by social and interpersonal skills (26.9%) and intrapersonal self-regulation. Only one case of extra-personal skills related to social relationships was found. Overall, the advertising and public relations specialization exhibited the highest proportion of soft skills, while journalism presented the lowest.

3.1. Study of the competencies of the main universities with degrees in communication in Spain

After establishing a general framework of the skills developed at the WPC, we examined the main Spanish universities in this area. To select these institutions, we turned to the Academic Ranking of World Universities (ARWU), internationally recognized as one of the most prestigious lists of universities worldwide, thanks to the objectivity and rigor of its methodology. To this end, we focus on the top five Spanish universities in this field, according to the ranking: the Open University of Catalonia (UOC), the Pompeu Fabra University (UPF), the University of Salamanca (USAL), the Carlos III University of Madrid (UC3M) and the Complutense University of Madrid (UCM). First, we established a method of comparative analysis, verifying access to the verification reports of the different degrees related to communication in all the selected universities. We made sure that these memories were accessible without restriction. Once access has been confirmed, we examine the documentation to identify and extract the competencies mentioned in the reports of the three communication careers offered by these institutions.

Subsequently, we conducted a study to determine whether all universities offered the same academic degrees, finding that the selected universities presented a diverse academic offer in studies related to communication sciences. UPF and UCM offered verification reports for the bachelor's degree in audiovisual communication, journalism and advertising and public relations. USAL limited itself to offering only the bachelor's degree in audiovisual communication, while UC3M offers the bachelor's degree in audiovisual communication and the bachelor's degree in journalism. On the other hand, the UOC proposed a versatile curriculum that covered various professional profiles, such as journalism, advertising and public relations, and audiovisual communication. A specific data matrix has been prepared for each university degree and university to deepen the study and analysis of the competencies. It has allowed us to examine the competencies detailed in the degree in communication study plans and its specializations in five universities highlighted: UOC, UPF, USAL, UC3M, and UCM, as seen in Table 2, providing a comparison.

Table 2. Skills detailed in the verification reports of the bachelor's degrees in communication of the five selected Spanish universities

	Skills' categories	UOC		UPF		USAL		UC3M		UCM	
Audiovisual communication	Core competencies	5	15.2%	0	0.0%	5	10.4%	5	22.7%		0.0%
	General competencies	7	21.2%	7	16.7%	7	14.6%	6	27.3%	6	16.2%
	Transversal competencies	3	9.1%	0	0.0%	0	0.0%	5	22.7%	6	16.2%
	Specific competencies	18	54.5%	35	83.3%	36	75.0%	6	27.3%	25	67.6%
		33		42		48		22		37	
Journalism	Core competencies	5	15.2%	0	0.0%	-		5	17.2%	0	0.0%
	General competencies	7	21.2%	12	30.0%	-		10	34.5%	10	21.3%
	Transversal competencies	3	9.1%	0	0.0%	-		5	17.2%	0	0.0%
	Specific competencies	18	54.5%	28	70.0%	-		9	31.0%	37	78.7%
		33		40		-		29		47	
Advertising and Public relations	Core competencies	5	15.2%	5	26.3%	-		-		0	0.0%
	General competencies	7	21.2%	6	31.6%	-		-		5	20.8%
	Transversal competencies	3	9.1%	0	0.0%	-		-		6	25.0%
	Specific competencies	18	54.5%	8	42.1%	-		-		13	54.2%
		33		19		-		-		24	

In the audiovisual communication specialty, we observe a greater diversity in the distribution of competencies that reflects different emphases and pedagogical approaches: i) UOC stands out for its focus on specific competencies (SC) (54.5%), underlining the importance of practical and specialized skills. In addition, it highlights the integration of soft skills in a third of its curriculum, demonstrating the value of these competencies in the professional environment; ii) UPF has a marked emphasis on SC (83.3%), evidencing a solid orientation towards the development of technical and specialized skills; iii) USAL focuses on SC (75%), reflecting a commitment to deepening specialized knowledge, despite the absence of transversal competencies (TC) in its approach; iv) UC3M shows a balance in the distribution of competencies, with a notable inclusion of basic and TC (22.7%), indicating a comprehensive approach that values theoretical bases and interpersonal skills; and v) UCM prioritizes SC (67.6%), but also recognizes the importance of TC (16.2%), underlining adaptability and collaboration as crucial skills.

In journalism, UPF, UC3M, and UCM stand out for their particular focus on SC, preparing students with practical and research skills essential to the field. UPF stands out with a concentration of 70% in these competencies, while UC3M balances its curriculum with a significant proportion of general competencies (GC) (34.5%), and UCM emphasizes technical preparation with 78.7% in SC. In advertising and public relations, UPF and UCM offer programs that stand out for a combination of basic, general, and SC, reflecting the importance of training combining theory and practice. UPF emphasizes a solid foundation of theoretical knowledge combined with applied skills, while UCM stresses the need for specialized skills complemented by adaptability and collaboration capabilities.

This detailed analysis reveals universities' consistent prioritization of SC, preparing students with skills directly applicable to their future professional careers. However, there is a remarkable recognition of the importance of soft skills, particularly in communication and critical thinking, evidencing their indisputable relevance in the professional field. The diversity in educational approaches reflects different pedagogical philosophies and strategies to equip students for the labor market, highlighting a synthesis of academic competencies and skills essential for success in communication, journalism, advertising and public relations. In conclusion, integrating academic competencies and soft skills into these programs underscores a deep commitment to preparing students for career success. UPF and UCM, in particular, emphasize the importance of this balance, showing a holistic approach to training future communication professionals.

In analyzing the competencies associated with the degrees in audiovisual communication, journalism, and advertising and public relations, a varied distribution is observed that reflects differentiated priorities in each field of study. This study makes it possible to discern how each soft skill is valued and emphasized within university curricula, providing a comprehensive view of the academic and professional preparation that students receive. The most prominent competence is communication, with 23.9% total, and, in particular, 44.4% in audiovisual communication, 37% in journalism, and 18.5% in advertising and public relations. This prevalence underscores the critical importance of communication skills in these fields, which are fundamental for professional success. Critical thinking also ranks highly (17.7%), especially in audiovisual communication (45%) and journalism (30%). It strongly emphasizes fostering the capacity for analysis and critical evaluation among students, essential skills for navigating and questioning the media and advertising environment. Long-life learning is consistently presented, highlighting its importance in adapting to constant change and continuous professional development in all disciplines. Analytical thinking, although valued in all areas, is particularly prominent in advertising and public relations (50%), reflecting the need to break down and understand complexities in marketing and communication strategies. Creativity, vital in dynamic and content-

generating fields, is balanced, with a particular emphasis on journalism (45.5%), suggesting a recognition of innovation and originality in journalistic storytelling. Teamwork and problem-solving indicate the importance of collaborating effectively and solving practical challenges in professional settings. Problem-solving is especially valued in audiovisual communication (50%), emphasizing this field's practical and applied nature. Leadership and self-awareness, while less prevalent in comparison, are still recognized as important components for personal development and the ability to lead teams and projects. Adaptability is highlighted in audiovisual communication and journalism, showing the need for flexibility and adjustability in constantly evolving industries. Time management and multicultural skills underscore the importance of effectively managing responsibilities and understanding and appreciating cultural diversity, respectively. Empathy, decision-making and curiosity, although less mentioned, are essential to understanding audiences, making informed decisions and maintaining a research and exploratory interest in the professional field.

In summary, the analysis strongly emphasizes key soft skills such as communication, critical and analytical thinking, and creativity, which are indispensable in audiovisual communication, journalism, advertising, and public relations, as shown in Table 3. In addition, continuous learning and adaptability are recognized, preparing students for success in dynamic and competitive industries. This study also highlights the diversity in assessing competencies across different disciplines, reflecting the richness of educational approaches and the varied demands of the labor market in the communication sector.

Table 3. Result of the soft skills that appear the most among the competencies described in the verification reports of the three communication degrees of the five most important universities in Spain in this sector

Soft skills	Results	Relevance (%)	Audiovisual communication		Journalism		Advertising and public relations	
Communication	27	23.9	12	44.4%	10	37.0%	5	18.5%
Critical thinking	20	17.7	9	45.0%	6	30.0%	5	25.0%
Long-life learning	13	11.5	5	38.5%	4	30.8%	4	30.8%
Analytical thinking	12	10.6	5	41.7%	6	50.0%	1	8.3%
Creativity	11	9.7	5	45.5%	2	18.2%	4	36.4%
Teamwork	6	5.3	1	16.7%	3	50.0%	2	33.3%
Problem-solving	6	5.3	2	33.3%	1	16.7%	3	50.0%
Leadership	5	4.4	2	40.0%	2	40.0%	1	20.0%
Self-awareness	4	3.5	1	25.0%	2	50.0%	1	25.0%
Adaptability	3	2.7	2	66.7%	1	33.3%	0	0.0%
Time management	2	1.8	1	50.0%	0	0.0%	1	50.0%
Multicultural skills	1	0.9	0	-%	1	100.0%	0	0.0%
Empathy	1	0.9	0	-%	1	100.0%	0	0.0%
Decision-making	1	0.9	1	100.0%	0	-%	0	0.0%
Curiosity	1	0.9	0	0.0%	1	100.0%	0	0.0%

3.2. Competencies required by the labor market linked to communication academic and professional profiles

After gathering information on the soft skills most valued in communication degrees at Spanish universities, we analyzed their demand in the labor market. Our goal was to determine whether these soft skills align with the requirements of communication professionals. We conducted this analysis using the European classification of skills, competencies, and occupations (ESCO). This comprehensive dictionary describes various jobs and skills and describes occupational profiles, relevant competencies, and knowledge at the European level. Our analysis focused on identifying which professional profiles emerging from communication programs align with the occupations listed in ESCO and what skills are associated with these profiles.

At this time, we established connections between the various access points of the professional profiles in communication denominations, based on each university degree specified in the WPC, with the occupations described in ESCO. According to ESCO, this approach involves using a standardization criterion of authorities to identify and relate professional profiles, facilitating a coherent comparison between academic competencies and the demands of the labor market. This approach allows us to trace a relationship between the academic training received and the labor market demands. This ensures that the professional environment reflects the soft skills identified in the academic field. In the process of control by authorities to unify professional profile titles, there is a strong demand for skills related to the creation and management of content, both in traditional and digital media, and a recognition of the importance of specialized technical skills (such as post-production) and soft skills (such as effective communication and leadership). Likewise, there is a notable consideration towards academic training and research, indicating a diverse and complex panorama in communication careers. This pattern reflects not only the adaptability professionals in the field require to navigate an ever-changing media environment but also the comprehensiveness of the training that educational institutions seek to offer.

At this point in the research, we have examined the correspondence between the designations of professional profiles used in the WPC and the nomenclatures adopted by universities. We will now look for correspondences between these profiles and the ESCO categories, using the same nomenclature found in the WPC and correspondence with the professional nominations of the universities. We took the 14 categories of professional opportunities from the WPC, referring to the three communication careers. To facilitate the identification of coincidences, we broke down the WPC profile descriptions, allowing us to compare the profiles individually. For example, comparing profile 1 of audiovisual communication: "director, screenwriter, and audiovisual creator", we search separately for the correspondences for "audiovisual director", "scriptwriter", and "audiovisual creator", as shown in Table 4.

Table 4. Designations of professional profiles used in the WPC for grade in communication

Original nomenclature used in the WPC		Sub-categories used in the comparison		
Audiovisual communication	1. Director, screenwriter, and audiovisual creator	Audiovisual director	Screenwriter	Audiovisual creator
	2. Producer and audiovisual manager	Audiovisual producer	Audiovisual manager	
	3. Visual and sound production and post-production design	Visual and sound production	Post-production design	
	4. Researcher, teacher and expert in visual studies	Researcher in visual studies	Teacher in visual studies	Expert in visual studies
Journalism	1. Editor of journalistic information in any type of medium	Editor of journalistic information for any kind of medium		
	2. Editor or person in charge of press or institutional communication	Editor or person in charge of press or institutional communication		
	3. Researcher, teacher and communication consultant	Communication researcher	Communication teacher	Communication consultant
	4. Portal manager and content editor	Portal manager	Content editor	
Advertising and public relations	1. Director of communication	Director of communication		
	1. Researcher in advertising and public relations	Researcher in advertising and public relations		
	1. Strategic consultant in advertising and public relations	Strategic consultant in advertising and public relations		
	2. Researchers, planners and media buyers	Media researchers	Media planners	Media buyers
	3. Creative and designer	Creative and designer		
	4. Corporate communication manager	Corporate communication manager		

In the search for coincidences with ESCO, we started concentrating on specific profiles and identifying only the families of higher professional profiles, i.e., those categorized with up to 4 numbers (ESCO level 1). At this level, we did not find any results. Therefore, we decided to open the search and include subcategories up to ESCO level 3 (4 numbers), and we obtained more coincidences. Throughout all the profiles, only on two occasions was an exact correspondence of terminology between the WPC and ESCO found, one being the profile of the scriptwriter and the other, "director of communication", as shown in Table 5.

Given the scarce direct correspondence between nomenclatures between the two sources, we modified the research process by considering the detailed descriptions of occupational profiles provided by ESCO. This approach allowed us to find more significant correspondences between the WPC profiles and the occupations in ESCO. For example, for audiovisual communication profile 2, "producer and audiovisual manager", at ESCO level 1, we find a correspondence in the category of "film, stage and related directors and producers", but if we go more specifically in the subcategory at ESCO level 3, we could find "video and motion picture producer", which better fitted the definition. Regarding profile 4, "researcher, teacher, and expert in visual studies", we validated the correspondence with "visual arts teacher" at ESCO level 2. We applied the same process to all three degrees. After doing so, we found that we went from 2 correspondences of the first approach to 9 matches on the 14 profiles, raising the percentage from 14.3% to 64.3% (Table 5).

3.3. Competencies required by the labor market linked to communication professionals

After compiling a list of professional profiles from the ESCO database corresponding to the profiles of graduates of the Degree in Communication, we analyzed the skills assigned to each profile, focusing on their demand in the labor market and the skills necessary for their performance. To do so, we relied on the UOC report on the labor market in Spain, which analyzes vacancies, occupations, and skills derived from 5.3 million job offers published in Spain between 2018 and 2022.

In this report, only the families corresponding to ESCO level 1 were identified, while in the previous work, we based ourselves on categories up to ESCO level 3. Due to this limitation and to maintain the same list of professional profiles, of the 9 profiles that found a match between the WPC and ESCO, we kept the profile corresponding to ESCO level 1: advertising and public relations manager, advertising and marketing professionals, University and higher education teachers, other arts teachers, public relations professionals, authors and other writers, journalists, creative and performing artists, and Film director, theatre and related. When analyzing the job offers, we observed that the professional profiles in the field of communication demand both specific technical skills and transversal skills. We identified the TC associated with each professional profile. We then cross-referenced the results to determine the most recurrent TC among all the selected profiles, as seen in Table 6.

Table 5. Comparison between WPC and ESCO nomenclature

WPC			ESCO level 1	ESCO level 1, 2, 3
Audiovisual communication	1. Director, scriptwriter, and audiovisual creator	Audiovisual director	2654 - film, stage and related directors and producers	2654.1.8 - video and motion picture director
		Scriptwriter	2641 - authors and related writers	2641.4.2 - scriptwriter
		Audiovisual creator		
	2. Producer and audiovisual manager	Audiovisual producer	2654 - film, stage and related directors and producers	2654.3.2 - video and motion picture producer
		Audiovisual manager		
	3. Visual and sound production and post-production design	Visual and sound production and post-production design	2654 - film, stage and related directors and producers	2654.2 - post-production supervisor
	4. Researcher, teacher and expert in visual studies	Researcher in visual studies		
		Teacher in visual studies	2355 - other arts teachers	2355.6 - visual arts teacher
		Expert in visual studies		
Journalism	1. Editor of journalistic information in any type of medium	Editor of journalistic information in any type of medium	2642 - journalists	2642 - journalists
	2. Editor or person in charge of press or institutional communication	Editor or person in charge of press or institutional communication		
	3. Researcher, teacher and communication consultant	Communication researcher	2310 - university and higher education teachers	2310.1.21 - university professor of journalism
		Communication teacher		
		Communication consultant		
	4. Portal manager and content editor	Portal manager		
		Content editor		
Advertising and public relations	1. Director of communication	Director of communication	1222 - advertising and public relations manager	1222.1 - director of communication
	1. Researcher in advertising and public relations	Researcher in advertising and public relations		
	1. Strategic consultant in advertising and public relations	Strategic consultant in advertising	2431 - advertising and marketing professionals	2431.3 - advertising specialist
		Strategic consultant in public relations		
	2. Researchers, planners and media buyers	Media researchers		
		Media planners		
		Media buyers		
	3. Creative and designer	Creative and designer		
	4. Corporate communication manager	Corporate communication manager		

For each professional profile, we determined the percentage of job offers that required the competence under study. This analysis revealed that only the ability to "adapting to change", "show responsibility", and "work as a team" were demanded in 100% of the profiles analyzed, highlighting its importance in the set of vacancies for similar competencies. Notably, only seven soft skills were present in at least 50% of the selected professional profiles, offering a clear vision of the most valued transversal skills in the communication sector.

On the other hand, some competencies have low demand, with a few exceeding 25% in coincidence in several cases. To provide another perspective for analysis, we grouped competencies into more general concepts that could highlight their relevance, as seen in Table 7. For example, skills related to teamwork,

such as “principles of teamwork”, “planning for teamwork”, and “team management”, were consolidated under the general concept of “teamwork”. Similarly, skills associated with creativity, such as “developing creative ideas,” “using creative software,” and “creative thinking,” were brought together in the concept of “creativity”. Additionally, competencies such as “creating solutions to problems” and “problem solving” were grouped under the broad concept of “problem-solving”. In contrast, those related to time management, such as “effective time management”, “prioritization”, and “prioritization of tasks”, were unified under the concept of “time management”.

Table 6. Correspondence between the designations of professional profiles used in the WPC and most recurrent transversal skills among all the selected profiles

The most recurrent transversal skills among all the selected profiles	1222 - Advertising and public relations manager (%)	2431 - Advertising and marketing professional (%)	2310 - University and higher education teachers (%)	2355 - Other arts teacher (%)	2432 - Public relations professional (%)	2641 - Author and other writer (%)	2642 – Journalist (%)	265 - Creative and performing artist (%)	2654 - Film director, theatre and related (%)
Adapting to change	59.6	53.9	37.9	43.5	36.3	36.1	38.5	25.0	52.8
Show responsibility	49.6	49.6	20.6	6.1	18.6	15.8	25.7	35.5	33.2
Work as a team	40.4	40.4	16.5	33.3	20.9	14.5	20.4	12.5	38.7
Submit ideas	28.8	24.6	15.4	8.9	20.7	13.3	16.3		37.2
Develop creative ideas	40.0	36.2	27.0		28.7	23.9	25.7	11.2	48.3
Principle of teamwork	39.4	39.4	15.4	26.6	14.5	14.2	20.0	17.2	33.9
Manage time	41.0	41.0				17.6	20.2	12.6	22.3
Create solutions for problems		26.4	12.3		13.3	16.6			
Think creatively				6.8		13.8	17.0		
Adjust priorities	31.4	31.35	9.0		14.5				
Problem-solving		23.5	11.3			15.9			
Leading a team			12.3		18.0		14.4		23.0
Delegate activities							16.1		20.8
Prioritize tasks	31.2		9.1		14.5				
Manage a team				14.7		24.3	23.0		
Foster team spirit	32.3	32.3			15.6				
Communication	41.0				48.7				

Table 7. Correspondence between the designations of professional profiles used in the WPC and most recurrent transversal skills among all the selected profiles - simplified

The most recurrent transversal skills among all the selected profiles	1222 - Advertising and public relations manager (%)	2431 - Advertising and marketing professional (%)	2310 - University and higher education teachers (%)	2355 - Other arts teacher (%)	2432 - Public relations professional (%)	2641 - Author and other writer (%)	2642 – Journalist (%)	265 - Creative and performing artist (%)	2654 - Film director, theatre and related (%)
Adapting to change	59.6	53.9	37.9	36.3	36.1	40.6	29.0	38.5	52.8
Show responsibility	49.6	49.6	20.6	18.6	15.8	15.1	20.1	25.7	33.2
Communication	28.8	24.6	15.4	20.7	13.3	10.7	19.2	16.3	37.2
Creativity	40.0	36.2	27.0	28.7	23.9	14.3	28.0	25.7	48.3
Teamwork	40.4	40.4	16.5	20.9	24.3	15.6	17.5	23.0	38.7
Time management	41.0	41.0	9.1	14.5	17.6	23.2	16.3	20.2	22.3
Problem solving		26.4	12.3	13.3	16.6	11.4	14.7		

The skills in 100% of the profiles selected for the study are “adapting to change” and “teamwork”, underlining their importance in the professional field. The demand for soft skills, such as “effective communication”, “creativity”, and “adaptability to change”, is a topic of wide debate in the academic literature. Laar *et al.* [19], in their study on 21st-century competencies, highlight the growing importance of these skills in the contemporary work environment. These skills are fundamental for personal and professional interaction and are key to success in the modern work environment [20]. It highlights the need to integrate soft skills development from primary education to university to effectively prepare students for the demands of today's work environment [21]. Therefore, it is proposed that the academic environment should adapt its curricula to meet the needs of external actors, especially in management programs, to ensure the preparation of students for job requirements [22]. These skills are crucial for overcoming challenges and determining the success of employees and organizations [23]. The presence of SC in communication degrees

and the identification of soft skills in demand underlines the need for a university curriculum that harmonizes technical knowledge with TC. Adapting academic programs to the needs of the labor market is a recurring theme in research [24]–[26]. These studies emphasize the importance of aligning education with the labor market to foster student success in the context of growing income inequality and economic pressures. Higher education must respond dynamically to changes in the demand for professional competencies, strengthening the professional relevance of academic programs by aligning curricular content with industry demands. Although the diversity in the nomenclature of professional profiles and associated competencies reflects a varied educational offer, the correspondence with the ESCO categories partially aligns with the labor market, presenting challenges and opportunities for academic institutions to improve their programs.

The methodology for analyzing and classifying competencies, reflected in frameworks such as ESCO, is essential for understanding labor market dynamics [27]. Furthermore, competencies in higher education must be continuously reviewed to align with career paths and labor market demands. Identifying changes in career competencies and their relationship to job adaptation and satisfaction highlights the relevance of soft skills for academic and professional success [28]. The methodological strategy for comparing competencies underlines the complexity of linking education with labor needs. It highlights the importance of promoting comprehensive training that systematically reviews TC from employers' perspectives [29], [30]. Addressing the integration of soft skills in higher education involves overcoming significant challenges, including assessment and curriculum development. The demand for skills such as "adapting to change" and "teamwork" in the communication sector emphasizes the need for curricula that prioritize these competencies, preparing students not only for today's job market but also to adapt to future challenges.

4. CONCLUSION

In conclusion, while higher education programs in communication seek to teach relevant soft skills, a discrepancy has been identified between the skills taught and those demanded in today's labor market. To bridge this gap, it is paramount that higher education programs in communication are updated and flexible to adapt to changes in the field. Establishing close links with communication professionals, business leaders, and employers can make identifying the most sought-after skills easier and adjust educational programs accordingly. Thus, this gap could be mitigated, and communication graduates could be prepared to meet the challenges of today's job market and the needs of the communication industry. Future research could focus on analyzing the factors contributing to this gap between university education and the labor market, identifying practical solutions for developing soft skills in candidates and improving their suitability for current job offers.

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AUTHOR CONTRIBUTIONS STATEMENT

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C : **C**onceptualization
M : **M**ethodology
So : **So**ftware
Va : **Va**lidation
Fo : **Fo**rmal analysis
I : **I**nvestigation
R : **R**esources
D : **D**ata Curation
O : Writing - **O**riginal Draft
E : Writing - Review & **E**diting
Vi : **Vi**sualization
Su : **Su**pervision
P : **P**roject administration
Fu : **Fu**nding acquisition

CONFLICT OF INTEREST STATEMENT

Authors state no conflict of interest.

DATA AVAILABILITY

The data that support the findings of this study are available on request from the corresponding author [PLN]. The data, which contain information that could compromise the privacy of research participants, are not publicly available due to certain restrictions.

REFERENCES

[1] M. Loumpourdi, "The future of employee development in the emerging fourth industrial revolution: a preferred liberal future," *Journal of Vocational Education & Training*, vol. 76, no. 1, pp. 25–44, Jan. 2024, doi: 10.1080/13636820.2021.1998793.

[2] S. McGuinness, K. Pouliakas, and P. Redmond, "Skills-displacing technological change and its impact on jobs: challenging technological alarmism?" *Economics of Innovation and New Technology*, vol. 32, no. 3, pp. 370–392, 2023, doi: 10.1080/10438599.2021.1919517.

[3] S. Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. London: Public Affairs, 2019.

[4] E. Maris, K. B. Wagman, R. Bergmann, and D. Bragg, "Tech Worker Perspectives on Considering the Interpersonal Implications of Communication Technologies," in *Proceedings of the ACM on Human-Computer Interaction*, Jan. 2023, pp. 1–22, doi: 10.1145/3567566.

[5] M. Anshari, M. Syafrudin, and N. L. Fitriyani, "Fourth Industrial Revolution between Knowledge Management and Digital Humanities," *Information*, vol. 13, no. 6, p. 292, Jun. 2022, doi: 10.3390/info13060292.

[6] H. S. Ng, "Opportunities, Challenges, and Solutions for Industry 4.0," in *Business Management and Communication Perspectives in Industry 4.0*, A. Ö. Tunç and P. Aslan, Eds. Hershey, PA: IGI Global, 2020, pp. 32–51, doi: 10.4018/978-1-5225-9416-1.ch003.

[7] World Economic Forum (WEF), "Towards a Reskilling Revolution: Industry-Led Action for the Future of Work," *weforum.org*, 2019. Accessed: Oct. 1, 2024. [Online.] Available: https://www.weforum.org/publications/towards-a-reskilling-revolution-industry-led-action-for-the-future-of-work/

[8] D. Arnold, M. Mazalu, and M. Uggeri, "eLene4Life: Active Learning for Soft Skills – University-Corporate Connections and Cross-Fertilisation," in *EDEN Conference Proceedings*, Jun. 2019, pp. 405–413, doi: 10.38069/edenconf-2019-ac-0045.

[9] S. Miller, "Exploring the Concept of Learning Agility," *Training & Development*, vol. 46, no. 3, pp. 17–19, 2019.

[10] F. Abd Majid, M. H. Zaini, S. Shafie, and N. H. Shafie, "Soft Skills Instructional Practices: An Investigation from the Perspective of the Immediate Stakeholders," *International Journal of Academic Research in Business and Social Sciences*, vol. 10, no. 14, pp. 49–60, Jun. 2020, doi: 10.6007/IJARBSS/v10-i14/7362.

[11] T. McDermott, N. Hutchison, and R. Crick, "The Evolution of HELIX: A Competency Model for Complex Problem Solving," *INCOSE International Symposium*, vol. 31, no. 1, pp. 907–925, Jul. 2021, doi: 10.1002/j.2334-5837.2021.00877.x.

[12] L. M. Camarinha-Matos, J. Goes, L. Gomes, and P. Pereira, "Soft and Transferable Skills Acquisition through Organizing a Doctoral Conference," *Education Sciences*, vol. 10, no. 9, p. 235, Sep. 2020, doi: 10.3390/educsci10090235.

[13] H. M. Zahir, "Soft skills valued by Maldivian college students as they prepare for lifelong learning, career success, and citizenship," *International Journal of Social Research and Innovation*, vol. 5, no. 1, pp. 47–65, Oct. 2021, doi: 10.55712/ijsri.v5i1.27.

[14] M. N. Muindi and R. Thinguri, "The Efficacy of Communication Skills Curricula and Instruction on Acquisition of Soft Skills for Students in Kenyan Universities: a Critical Analysis," *European Journal of Education Studies*, vol. 9, no. 1, pp. 196–203, Jan. 2022, doi: 10.46827/ejes.v9i1.4109.

[15] R. B. Johnson and A. J. Onwuegbuzie, "Mixed Methods Research: A Research Paradigm Whose Time Has Come," *Educational Researcher*, vol. 33, no. 7, pp. 14–26, Oct. 2004, doi: 10.3102/0013189X033007014.

[16] A. Manetti, P. Lara-Navarra, and J. Sánchez-Navarro, "Design process for the generation of future education scenarios," *Comunicar*, vol. 30, no. 73, pp. 33–44, Oct. 2022, doi: 10.3916/C73-2022-03.

[17] J. W. Creswell, *A Concise Introduction to Mixed Methods Research*, 2nd ed. Thousand Oaks, CA: SAGE Publications, Inc., 2021.

[18] Agencia Nacional de Evaluación de la Calidad y Acreditación (ANECA), "White Paper. Bachelor's Degrees in Communication," *aneca.es*, 2005. Accessed: Oct. 1, 2024. [Online.] Available: http://www.aneca.es/var/media/150336/libroblanco_comunicacion_def.pdf

[19] E. van Laar, A. J. A. M. van Deursen, J. A. G. M. van Dijk, and J. de Haan, "Determinants of 21st-Century Skills and 21st-Century Digital Skills for Workers: A Systematic Literature Review," *Sage Open*, vol. 10, no. 1, pp. 1–14 Jan. 2020, doi: 10.1177/2158244019900176.

[20] İ. Y. Kazu and M. Kuvvetli, "The Impact of Virtual Reality Technology on Student Engagement and Learning Outcomes in Higher Education," in *Proceeding Book of 2nd International Conference on Recent Academic Studies ICRAS 2023*, 2023, pp. 143–149, doi: 10.59287/as-proceedings.46.

[21] B. A. Ritter, E. E. Small, J. W. Mortimer, and J. L. Doll, "Designing Management Curriculum for Workplace Readiness: Developing Students' Soft Skills," *Journal of Management Education*, vol. 42, no. 1, pp. 80–103, Feb. 2018, doi: 10.1177/1052562917703679.

[22] M. Tripathy, "Relevance of Soft Skills in Career Success," *MIER Journal of Educational Studies Trends & Practices*, vol. 10, no. 1, pp. 91–102, Jan. 2021, doi: 10.52634/mier/2020/v10/i1/1354.

[23] J. L. Cleary, M. R. Kerrigan, and M. van Noy, "Towards a New Understanding of Labor Market Alignment," in *Higher Education: Handbook of Theory and Research*, M. B. Paulsen, Ed., Cham: Springer, 2017, pp. 577–629, doi: 10.1007/978-3-319-48983-4_12.

[24] K. Khalid and A. M. Ahmad, "The relationship between employability skills and career adaptability: a case of undergraduate students of the United Arab Emirates," *Higher Education, Skills and Work-Based Learning*, vol. 11, no. 5, pp. 1035–1054, Oct. 2021, doi: 10.1108/HESWBL-08-2020-0175.

[25] L. Underdahl *et al.*, "A Framework to Enhance Graduate Employability," *International Journal of Doctoral Studies*, vol. 18, pp. 55–75, 2023, doi: 10.28945/5090.

[26] H. Belchior-Rocha, I. Casquilho-Martins, and E. Simões, "Transversal Competencies for Employability: From Higher Education to the Labour Market," *Education Sciences*, vol. 12, no. 4, p. 255, Apr. 2022, doi: 10.3390/educsci12040255.

[27] J. Hart, M. Noack, C. Plaimauer, and J. Bjørnåvold, "Towards a structured and consistent terminology on transversal skills and competences," in *2nd report to ESCO Member States Working Group and EQF Advisory Group on a terminology for transversal skills and competences (TSCs)*, Oct. 2020, pp. 645–670.

[28] I. Grosemans and N. de Cuyper, "Career competencies in the transition from higher education to the labor market: Examining developmental trajectories," *Journal of Vocational Behavior*, vol. 128, p. 103602, Aug. 2021, doi: 10.1016/j.jvb.2021.103602.
[29] J. García-Álvarez, A. Vázquez-Rodríguez, A. Quiroga-Carrillo, and D. P. Caamaño, "Transversal Competencies for Employability in University Graduates: A Systematic Review from the Employers' Perspective," *Education Sciences*, vol. 12, no. 3, p. 204, Mar. 2022, doi: 10.3390/educsci12030204.
[30] M. Abelha, S. Fernandes, D. Mesquita, F. Seabra, and A. T. Ferreira-Oliveira, "Graduate Employability and Competence Development in Higher Education—A Systematic Literature Review Using PRISMA," *Sustainability*, vol. 12, no. 15, p. 5900, Jul. 2020, doi: 10.3390/su12155900.

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