

Social networks in university education for global tech entrepreneurship and employability

* Inna Alexeeva Alexeev, ** Anna Amorós-Pons, *** Patricia Comesaña-Comesaña

*  Business Organizaton/SANFI Universidad de Cantabria (inna.alexeeva@unican.es)

**  Audiovisual Communication and Advertising Universidade de Vigo (amoros@uvigo.gal)

***  Faculty of Communication Sciences Universidade da Coruña (p.comesanac@udc.es)

Abstract

The use of social networks has been a recurring theme in recent times. Studies indicate that, despite the fact that young people are intensive consumers of digital content, there is a lack of digital and entrepreneurial skills among them. More specifically, focusing on the university population, greater technological literacy would boost the so called technoentrepreneurship, which would also extend internationally, as a new line of employability. To this end, it is important to know the consumption habits of young university students of different media, the purpose for which they consume social networks (SM) and what type and to evaluate how they prioritise them. Therefore, this research proposes to analyse the specific use of SM for educational and professional purposes by university students. The empirical study was carried out with a sample taken from a Spanish university that promotes national and international talent and fosters entrepreneurship. The analysis of data obtained through an anonymous survey distributed online was carried out using the Rasch model. The results show that students, being active users of digital media in general, use SM mainly to expand their network of contacts and to be in touch with companies. They also use this channel to share learning. However, they do not prioritise the use of SM to improve their academic background or practical and digital skills. These results serve to contribute to the knowledge on how to exploit the use of digital media to increase job opportunities for university graduates.

Keywords: International technoentrepreneurship, social media, professional competencies, digital skills, higher education.

Resumen

El uso de las redes sociales ha sido un tema recurrente en los últimos tiempos. Los estudios señalan que, a pesar de que los jóvenes son consumidores intensivos de contenidos digitales, se observa una falta de competencias digitales y emprendedoras entre ellos. Más específicamente, centrándonos en la población universitaria, una mayor alfabetización tecnológica impulsaría el llamado tecnoemprendimiento que, además, se extendería a nivel internacional, como nueva línea de empleabilidad. Para ello, es importante saber los hábitos de consumo de los jóvenes universitarios de distintos medios, el propósito con el cual consumen las redes sociales (RRSS) y de qué tipo y valorar cómo las priorizan. Por tanto, esta investigación propone analizar el uso específico de RRSS con fines educativos y profesionales por parte de los estudiantes universitarios. El estudio empírico se realizó con una muestra extraída de una universidad española que potencia el talento nacional e internacional y fomenta el espíritu emprendedor. El análisis de datos obtenidos mediante una encuesta anónima distribuida online se realizó mediante el modelo Rasch. Los resultados muestran que los estudiantes, siendo usuarios activos de medios digitales en general, utilizan las RRSS para principalmente ampliar su red de contactos y estar en contacto con empresas. Asimismo, recurren a este canal para compartir el aprendizaje. Sin embargo, no priorizan el uso de RRSS para mejorar su formación académica o competencias prácticas y digitales. Estos resultados sirven para contribuir al conocimiento sobre cómo

explotar el uso de medios digitales para aumentar las oportunidades laborales de los titulados universitarios.

Palabras clave: tecnoemprendimiento internacional, redes sociales, competencias profesionales, habilidades digitales, educación superior.

Introduction

This study has its origin in a global project of educational innovation and research in higher education applied to the technological field. Specifically, it refers to social networks as resources for learning and e-entrepreneurship, which tries to reduce the deviation “between the international dimensions of the three core functions of higher education: education, research and service to society” (De Wit, 2020, p.2). In professional spheres, especially in those careers which refer to high qualifications and the need to innovate constantly, digital and technological competencies are considered fundamental. They are also helpful in entrepreneurship. The European Union's DigComp Label (Centeno, 2020) established a set of digital skills that European students and citizens should obtain to take advantage of job opportunities in a highly international technological context. Besides that, this approach to professional learning is highly attractive to international students, those who obtained their previous education in a country different from their home country, who want to study abroad to gain a competitive advantage by taking advantage of the opportunities offered by student mobility (OECD, 2022).

These competences include knowledge of how to access information in digital environments, to analyse, manage and critically evaluate data and to interact through digital technologies. In this dynamic and demanding context, reports on employability and digitalisation highlight a lack of professional profiles with comprehensive digital-based training to cover emerging vacancies, such as artificial intelligence experts, data analysts, UX designers, machine learning experts, digital communication and social media professionals, experts in the internet of things or managers of technology-based companies (Ontsi, 2021; Observatory of occupations, 2022). Studies on self-perception of transversal professional and digital skills in higher education reveal shortcomings regarding these emerging skills (Bastos et al., 2019).

This gap between the needs of the labour market and the technological learning of future professionals makes it possible to generate important employment and national and international entrepreneurship opportunities for graduates with solid digital skills. This is consistent with the approach higher education should follow, for which the European framework establishes the need to include digital and entrepreneurship competences in current curricula (European Commission, n.d.). Moreover, there is an opportunity to exploit synergies between information and communication technologies (ICT) and the digital generation to promote a new line of employability called e-entrepreneurship (Torres-Coronas et al., 2014). It is based on ICT, making intensive use of digital platforms, e-commerce, and social media channels in application to business management (Hammood et al., 2020).

This approach provides knowledge and digital skills, increasing the level of creativity and innovation of students and improving their attitude towards their professional future, as Harsono (2013) concludes in his research on technoentrepreneurship and new generations. Moreover, the acquisition of digital skills for self-

employment makes it possible to train entrepreneurs. These young entrepreneurs are characterised by being autonomous professionals who are likely to manage successful innovative businesses and are open to exploit the opportunities the new technologies offer them both in their countries and in international job experiences. In this technological context, it has been noted that during learning, the levels of motivation, involvement and the (pro)active transfer of knowledge among students increase (Shubina & Kulakli, 2019). Furthermore, technology linked to entrepreneurship generates a process, whereby the design and development of an innovative solution is ensured. Promoting technoentrepreneurship, we set a basis for young people to join the labour market, which requires an entrepreneurial spirit, creative skills, and the ability to cope with changes in a global and dynamic environment (Laguía et al., 2019).

It is necessary to have access to digital resources, the efficient exploitation of which can increase opportunities for labour market insertion and individual entrepreneurship among graduates (Nam & Xiong, 2021). One of these resources is digital social platforms, which are used as a tool for content creation and exchange (Kaplan & Haenlein, 2010) and also for relationships with other users who share similar interests (Akram & Kumar, 2017). Based on the premises proposed by DigComp and the objective of the European Entrepreneurship Competence Framework, EntreComp, to promote an entrepreneurial mindset among international students (McCallum et al., 2020), social media become an instrument which helps young people to acquire and consolidate professional and soft skills, such as creativity, teamwork, communication, contacts management, and adaptability. This background allows them to detect and take advantage of technoentrepreneurial opportunities (Van-Horne et al., 2016) and to strengthen digital skills within the university system, as explained by Organista et al. (2017) who defined four fundamental dimensions: "access to information, communication management, organisational aspects, and portable technology" (p.330).

Social media are beneficial for personal and business use, as they serve to establish relationships with stakeholders (Andersson & Wikström, 2017) and increase the success of the start-ups which should look at international markets as a business opportunity. These platforms influenced individual and professional relationships and communications. For entrepreneurs, the use of social networks is essential, since it provides support for problem-solving around the start-up (Ceptureanu et al., 2020), enables greater innovation, productivity (Scuotto et al., 2017), and expansion towards foreign markets.

Another positive impact on business is that they help to balance entrepreneurial networks. Social networks build the space for entrepreneurs to access, trying to acquire specific skills which allow them to manage uncertainty and adapt to the demands of the internal and external labour market (Riverola et al., 2022). The added value offered by social media as a professional tool is validated through brand building, creation of international commercial networks, information management, communication channels, search for non-traditional financing, and spaces for innovation which allow for improved business competitiveness (Olanrewaju et al., 2020).

These observations are consistent with what had already been reflected in the previous studies analysing the potential of social capital, which refers to the contacts network built up over a period of time (Schutjens & Völker, 2010). It is further emphasised that network management requires a structure and analysis to determine what type of content and contacts should be generated at any given time, since, like the environment, digital networks also evolve and involve a different strategy (Martínez & Aldrich, 2011).

In terms of the typology of the most used social media in national and international business environment, there are two which stand out: LinkedIn for professional contacts and the former Twitter (currently "X") for

business performance. Facebook is used for informal support among close contacts (Song, 2015). There are other social networks which are also applied among business professionals as well as potential entrepreneurs, but the purpose and the use of each of them are different (Lu & Hampton, 2017). What is clear is that all these networks, including the complementary ones, help to manage and consolidate business relationships effectively. They are also a tool for the generation and management of information related to entrepreneurial opportunities (Drummond et al., 2018).

For university graduates, technoentrepreneurship offers larger opportunities for international employability (Abdelfattah et al., 2022). The decision to become an entrepreneur is partly influenced by the university environment (Moraes et al., 2018), more so if it includes explicit educational support for entrepreneurship (Fayolle & Liñán, 2014). Young people are intensive users of social networks, a digital channel which became a source of entrepreneurial opportunities for recent graduates (Muninger et al., 2019). Several studies confirm that social media is a useful resource for millennials who prefer to be online entrepreneurs, as it offers them a field for experimentation and also gives them wider access to business opportunities (Anggraini & Persada, 2021) or a cross-border venture. It is also a tool used intensively by centennials (generation Z), who were born into a virtual and technologically advanced environment. They are known as the generation hyperconnected to social networks, such as Instagram, Twitter (X), WhatsApp, Youtube, Twitch or TikTok (Vázquez & Ruiz, 2019). This generation connects to the digital world through mobile phones as smart devices used for personal purposes and during the secondary education stage (Villanti et al., 2017).

The educational process is the key which, correctly structured, can lead students to the detection of employment and entrepreneurial opportunities and accompany them in their individual and professional growth. This type of learning should be maintained throughout the students' academic planning and not limited to a specific subject, and be complemented with professional training (Harsono, 2013). Currently, training experiences which promote the culture of virtual entrepreneurship among students are a reality, as explained by Morales and Corredor (2016). The results of their study show very positive conclusions, revealing a more professional approach to the use of social networks, which favour a change of focus in their consumption, shifting from a purely leisure habit to a specific use linked to future job demands. There are also some outstanding models of digital entrepreneurship in the university environment. One of them is EmDigital, proposed by Prendes-Espinosa (2022), who defines 4 areas of competence (identification of opportunities; action planning; implementation and collaboration; and management and security) and 15 sub-competences linked to these main areas (creativity and innovation, leadership, problem-solving, and others).

Considering the importance of digital literacy and the proactive attitude of young people, it is necessary to understand whether the digital natives really know and efficiently manage the resources and opportunities available through social media. The reason is to improve their professional digital skills, let them acquire specific knowledge, increase their employability, or encourage them to become entrepreneurs in the technological-digital field. The perceived gap between technological skills in the professional-academic area and a hyper-connected youth ratifies the need to delve deeper into the training possibilities offered by social media. The inclusion of social media in the educational process in universities means that this digital channel should be exploited specifically in support of teaching activities, given that a certain lack has been detected in this regard (Zachos et al., 2018; Manca, 2020). Therefore, the main objective of this research is to explore

the use of social media for educational and professional purposes by young university students within a creative academic environment that promotes a culture of international innovative entrepreneurship.

Methodology and Sample

This research was carried out at the Spanish university (European University of Atlantics, Santander) in 2021. This university has approximately 40% of international students, mainly from different Latin American countries, as they see it as a great opportunity to study within the European Higher Education Framework in a Spanish-speaking environment. International students gain access to the university by passing the university entrance exam, by international mobility, or by taking the scholarships that the institution allocates to alleviate the economic gap faced by some students with fewer resources so that they can access foreign studies that allow them to live an international experience and build personal relationships that will be of value to them when they return to their country of origin. Among these experiences through the Chair of Entrepreneurship, the institution encourages training in self-employment. For this purpose, it has been promoting an entrepreneurial spirit and generating a creative and innovative environment through the University Incubator, extracurricular activities and teaching processes. This learning process allows national and international students to integrate in order to establish collaborative links and to understand that they are facing a globalised world where the physical borders of the labour market are diluted and entrepreneurial opportunities can arise or expand beyond their borders or through collaborations with international professionals and companies thanks to new communication technologies.

In this study, we used an anonymous online survey. Respondents were of legal age and duly informed about the purpose of the research, so no special procedures were required regarding the management of authorisations through the university's Research Ethics Committee. Neither has it represented any responsibility concerning the Organic Law on Data Protection in terms of data custody and ARCO rights.

The sample consisted of 162 university students, which is 56.6% of the population involved in the educational project of social media. The majority of the sampled students is women (62.3%), from 3rd and 4th years of different careers. Respondents' ages ranged from 20-29, so the sample was classified into two groups: Group 1 from 20-22 (expected age of the undergraduate students in their last two years of studies) and Group 2 with over 22 years old.

The academic degrees studied by the students are classified in the following groups: BAM with 6.2% (Business Administration and Management); ENG as engineering careers included in the Polytechnic School (Industrial Organisation, Computer Engineering and Agro-Food Engineering) with 16.7%; CREAT which corresponds to the creative degrees (Audiovisual Communication, Journalism and Advertising) with 40.7%; and PSY with 36.4% (Psychology).

The subjects, which included social media for academic and professional use included Press Design, Advertising Campaign Design, Project Management, Entrepreneurship, and Final Degree Project. They were considered to be ideal for generating a creative and innovative environment. Therefore, they include the tools and methodologies which help to spread entrepreneurial culture among graduates and put them closer to the labour market in a digitalised society. 44% of students took two of these subjects; the rest are distributed among smaller groups who had less (1) or more (3-4) of any of the aforementioned subjects during their university career. The most frequently repeated subject among the sampled students is

Entrepreneurship, with 86%. The second one is the Final Degree Project, with approximately 74%, which is challenging since it involves a lot of autonomous work and requires presenting a proposal focused on the development of an innovative solution. Therefore, the vast majority of the undergraduates has certain experience in the application of social media platforms within the teaching-learning processes (Table 1). For the analysis of the social networks used by students, the authors considered the report provided by the IAB (2022), which analyses the use of twenty social networks based on a sample of Spanish users aged between 12 and 70. The study includes consolidated networks –Facebook, Instagram, Youtube, TikTok, LinkedIn, Twitter (X) and WhatsApp– and emerging networks, such as BeReal, BePlus, and Lapse, which prove to be relevant for young people. The results presented by the IAB indicate that around 85% of individuals use a social network regularly. The high number of networks on which they have profiles or have ever used (around 5.2 networks per user) may lead to that 34% of users abandon some network (mainly Facebook and Snapchat). Finally, young people aged 18-24 spend much time on social networks daily and their penetration reaches 93%.

Table 1: Descriptive statistics of the sample.

Gender	Students, n	Students, %	Age (group)	Students, n	Students, %
Man	60	37.0	Group 1 (20-22 y. old)	119	73.5
Woman	101	62.4			
Not identified with any	1	0.6	Group 2 (>22 y. old)	43	26.5
Total	162	100	Total	162	100
Academic careers (grades)	Students, n	Students. %	Number of subjects studied by students	Students. n	Students. %
Business Administration and Management	10	6.2	1	27	16.7
<i>Subtotal BAM</i>	<i>10</i>	<i>6.2</i>	2	72	44.4
Computer Engineering	12	7.4	3	26	16.0
Agro-Food Engineering	1	0.6	4	28	17.3
Industrial Organisation	13	8.0	5	9	5.6
Double degree	1	0.6	Subjects using social media	Students. n	Students. %
<i>Subtotal ENG</i>	<i>27</i>	<i>16.7</i>			
Audiovisual Communication	15	9.3			
Journalism	12	7.4			
Advertising	31	19.1	Press Design	30	18.5
Double degrees	8	4.9	Advertising Campaign Design	59	36.4
<i>Subtotal CREAT</i>	<i>66</i>	<i>40.7</i>	Project Management	59	36.4
Psychology	59	36.4	Entrepreneurship	140	86.4
<i>Subtotal PSY</i>	<i>59</i>	<i>36.4</i>	Final Degree Project	119	73.5
Total	162	100			

Source: Own elaboration

Our empirical study shows similar results: the most popular network among undergraduates, in which they are very active in creating and sharing content, is Instagram, with 73% of users. The next is Twitter, with 23% of users; the rest of the networks report minor active usage. However, the use of the same networks increases if it is only for consumption rather than content creation. For example, Youtube is actively used (at least, twice a day) by the sampled students (50%), while the proportion of active users of this network is almost 4 times less (12%). TikTok is another network reporting a much more intensive use for consulting than creating (27% vs. 11%, respectively). The descriptive statistics reveal that the mean number of social media per student, on which they are active, is 5.3. The sample is reasonably split into active users of up to 5 social networks (below the mean), with 54%, and of more than 5 (over the mean), with 46%. (Table 2). In terms of reasons for usage, according to the IAB report (2022), adults aged 18-40 use social networks to find inspiration, follow trends, and get information. This supports the results which show the low use of traditional media (newspapers or radio magazines) to stay informed. Regarding the content related to the labour market, only 14% of Centennials (18-25 years old), follow the news linked to professional projection compared to 28% of the Millennials (25-40 years old). This reality corresponds to what was observed in this study too. Regarding the social media vs. other media consumption, a great number of students do not consume printed newspapers (63%) or radio programmes (56%) for specific contents. The television consumption is different, since the majority watches news channels and similar up to thrice a week. 93% of students access digital social platforms daily to consume content. Regarding the professional and educational networks, 38% of students have a profile on LinkedIn and 51% on Twitter (X). It is also observed that the percentage of the most active users is higher on Twitter than in LinkedIn (45% vs. 27%). However, the proportion of users, with or without a profile on these two networks, who consult the contents occasionally is similar, between 11% and 15%.

Table 2: Different usage of social networks.

Social networks	Active usage of social media for:				
	Content Creating		Content Consulting		
	Students, n	Students, %	Students, n	Students, %	
Instagram	118	72.8	38	23.5	
former Twitter (X)	37	22.8	25	15.4	
Facebook	21	13.0	32	19.8	
Youtube	19	11.7	81	50.0	
TikTok	18	11.1	43	26.5	
LinkedIn	17	10.5	18	11.1	
Twitch	9	5.6	10	6.2	
Number of social networks per student (which they actively use)					
	Students, n	Students, %		Students, n	Students, %
In ≤ 5 networks	88	54.3	In > 5 networks	74	45.7

Source: Own elaboration

Regarding the undergraduates' motives for using social networks, it is mainly for entertainment (84%). Information on current news (52%), fashion consumption (49%), cooking (46%), and sport or fitness (41%)

are some of the other reasons behind the intensive use among the sampled students. Regarding the contents oriented on business, finance, and entrepreneurship, the results show that only a quarter of the respondents are interested in this information. Additionally, as shown in Table 3, students search for information on social networks for the following two reasons: professional (to find inspiration for a professional creation), 54%, and academic (to find examples to complete an assignment), 51%. This search is often complemented by consulting professional journals (74%) and blogs (66%).

The applied questionnaire included different blocks of questions and statements. The participants were asked to provide some demographic data, such as age, gender, and studies. The second block contained different statements regarding the use of social media, to which students had to respond using a six-point Likert scale with the options from "strongly disagree" (1) to "strongly agree" (6). In this case, a small number of categories were applied (Weng, 2004) and the middle point was avoided making respondents define their opinion better because a neutral position does not always mean a neutral opinion (Chyung et al., 2017).

The statements of the second block of the questionnaire were as follows:

- P20-1: I employ SM to access educational training resources.
- P20-2: I employ SM to share experiences related to learning of certain subjects.
- P20-3: I employ SM to share entrepreneurial experiences.
- P20-4: I employ SM to expand my contacts.
- P20-5: I employ SM to interact with companies for future work or collaboration.
- P21: The usage of SM must be included in certain subjects.
- P22: I employ SM to improve my academic performance.
- P23-1: SM can help to improve the practical competencies of my career.
- P23-2: SM can help students to gain digital knowledge and skills.

For the construct validation, the authors used the Rasch model, effective for the measurement of latent traits. This analysis improves the precision of measurement and ensures the unidimensionality of the construct. It also guarantees the independence of the results from the sample and the items analysed. Finally, this method is effective for small and medium-sized samples (Linacre, 1994). The software used for this analysis is Winsteps, version 4.8.0.0.

Table 3: Consumption of traditional media and social networks by university students.

Consumption of print press, radio, and TV					Consumption of Social Media		
	Yes, n	Yes, %	No, n	No, %	Frequency	Students, n	Students, %
Print press	60	37	102	63	Never	2	1,2
Radio	71	43.8	91	56.2	Daily	151	93,2
TV	139	85.8	23	14.2	Once a week	1	0,6
Consumption of LinkedIn and Twitter (X)			Students, n	Student s, %	Type of consult in social media	Students, n	Students, %
LinkedIn: have a profile			62	38.3	Leisure	136	84.0
LinkedIn: active users, with profile			17	27.4	News	84	51.9
LinkedIn: consult occasionally, with or without a profile			18	11.1	Fashion	80	49.4

Twitter: have a profile	83	51.2	Cuisine	74	45.7
Twitter: active users, with profile	37	44.6	Sports	66	40.7
Twitter: consult occasionally, with or without a profile	25	15.4	Business and finance; Entrepreneurship	42	25.9
Reasons for seeking information in social media	Students		Other sources of consultation	Students	
	n	%		n	%
Inspiration for professional creation	88	54.3	Professional journals	119	73.5
Find examples to fulfil assignments	83	51.2	Professional blogs	107	66.0
Exploration only	59	36.4	Specialised magazines	68	42.0
Understand what was asked in class	53	32.7	Scientific journals	69	24.6
Find additional theoretical content for a subject	46	28.4	None	8	4.9

Source: Own elaboration

Analysis and Results

The application of the Rasch model comprises different analyses to validate the construct, internal consistency, unidimensionality, and scale categories. In addition, we include the conjoint analysis of the individuals and items, which establishes the hierarchy of item usage. All these analyses show excellent levels, as reported below:

- reliability of individuals and items: high reliability (individuals=0.88; items=0.98), clearly above the minimum required 0.7 (Nunnally, 1978). This means that respondents understand the items (the statements) and are able to answer them. The sample is sufficient to confirm the relevance of the items in this study since the correlation of individuals and items is nearly 1 (individuals =0.97; items=-0.99); Cronbach's alpha=0.94.
- subject-item validity: the MNSQ (infit and outfit) values are within the range of 0.5-1.5 (nearly 1) and the ZSTD fit statistic is close to zero, as required in this analysis. This indicates an optimal fit between individuals and items (Planinic et al., 2019).
- unidimensionality: the variance explained by items (27.8%) is over the variance of the first factor (8.4%) and the variance explained by measures (67%) is over 40% required as minimum baseline (Linacre, 2016). The value of the non-explained variance of the first factor, strictly speaking, should be below 2, but in this study, it is 2.3. This indicates that there is a dominant dimension and a weaker secondary one. This is the so called multidimensionality, widely accepted in this kind of analysis (Bond & Fox, 2015). Moreover, considering the excellent results of the previous tests, the researchers decide to continue with the rest of the tests.
- adjustment of the response categories: the mean measures gradually increase and show values close to the expected ones. The assumption that in each category there are more than 10 responses is satisfied (Linacre, 1999). The observed means are similar to the expected means. The MNSQ Infit and Outfit values are close to the value of 1 considered as optimal (Linacre, 2016). It means that the response categories contain valid observations. According to Andrich's thresholds and the

category measures, which grow gradually while keeping the fit statistics within acceptable ranges, the categories used in the Likert scale follow a uniform scoring.

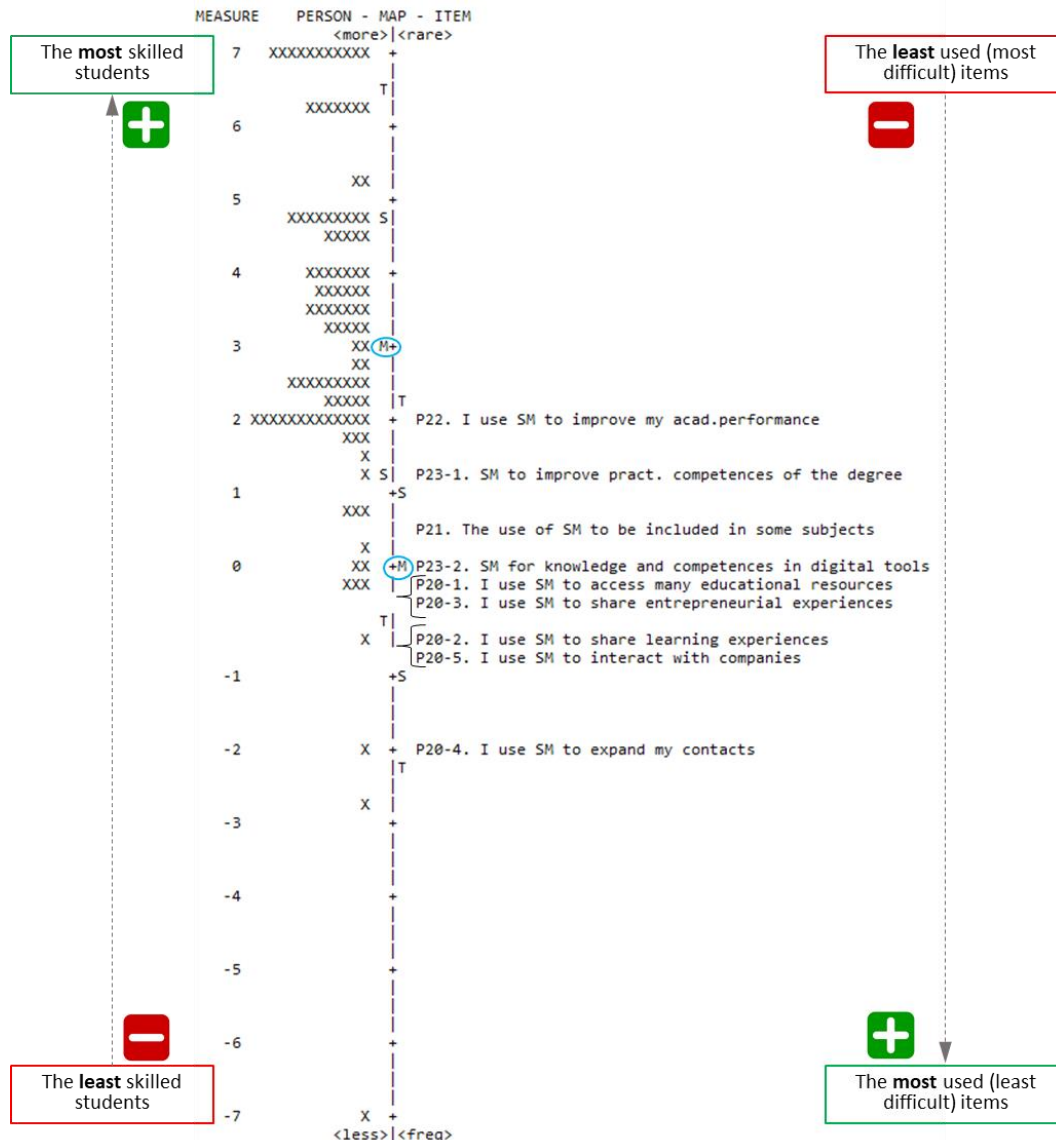
In this study, the authors have obtained the items hierarchy, which is ordered, according to the students' perspective, from the most used to the least used items:

- P20-4.
- P20-2. / P20-5. (both on the same level).
- P20-1. / P20-3. (both on the same level).
- P23-2.
- P21.
- P23-1.
- P22.

The interpretation is that students make extensive use of social media to increase the personal contacts they have. As for the application of the networks for learning, students use them to communicate to others how they are studying different subjects. The use of this digital channel to improve their learning outputs presents some difficulties for a certain group of students.

This information is complemented by the Wright map, which shows the conjoint distribution of the items, according to their difficulty as the most and the least used, and of the individuals, according to their ability or experience regarding the use of social media for academic and professional purposes (Figure 1).

Figure 1: The Wright map.



Source: Own elaboration.

The left part of the map shows the students represented by the letter "X". The students shown at the upper part of the map are more intensive in the usage of social media for academic and professional purposes; the students distributed in the lower part make little use. The items are shown on the right half of the map. The most difficult for the students items (in this case, the least used) are situated in the upper part of the map. The items which are most employed by students (in this case, the easiest for them) are located at the bottom. If the individuals are shown at the same level as the items, it means that there is 50% probability of that these individuals solve the given items satisfactory. In this case, the interpretation would be that the students are likely to employ the social media for the purposes outlined by each item. If individuals are above the items, the probabilities of solving the items increase. The opposite is true if individuals are below the items. The map also shows that means of the students ("M"-left side) and the items ("M"-right side) are

quite separated. This means that, generally speaking, most of the sampled students use social media for educational and professional purposes to join the labour market successfully. However, there is a group of students who has hardly or never used this digital channel to improve their academic performance (item P22) or their practical skills related to the career they are studying (item P23-1). Nor do they see the need to include digital social media in the learning processes (item P21). Possibly, the personal use of social networking by these students is mainly for leisure.

Discussion and Conclusions

The main contribution of this research is the analysis of the attitudes of university students regarding their use of social media for academic and professional purposes.

The results obtained in this empirical study show that the employment of social media by undergraduates goes beyond the personal purposes (entertainment and leisure) and is largely focused on increasing their contact networks, as well as interacting with the companies in which they would like to work. It is worth noting the intensive use that the students make of this digital channel to share entrepreneurial experiences. On this path towards the professional digitalisation of students, we should consider that entrepreneurship has an added value as it generates wealth, creates jobs, and influences positively the economic growth of a nation, region, or country (Lupiáñez et al., 2014). Therefore, if we consider that today many young people are starting in online entrepreneurship thanks to experiences shared or acquired through social media, knowledge of digital business management becomes a relevant aspect.

Regarding the learning process, sharing learning experiences, improving certain professional skills, consulting various academic resources, and sharing techno-knowledge are other priorities for university students. In this vein, it is important to consider the possible influence of certain factors on the application of social media in educational environments. Firstly, the environment promotes creativity and innovation, because it stimulates students' interest and curiosity driving them to explore more about what they are learning. Secondly, it would be wrong to consider that this is achieved only by including social media in the teaching process. It is observed that students increase their use of social media to improve their digital skills if they consult complementary printed sources (newspapers and professional magazines), for information and learning. Likewise, students who consume radio for news and information, use social media more actively as an additional channel to improve their performance. Moreover, they do not see social media as the only channel for educational resources. Something similar happens to the students who use social networks to search for news related to business, entrepreneurship, and finances. Probably, because their orientation is much more professional, they think that there is no specific need to include social media in the subjects they study at the university.

These results point out that the perception of the role of social media in higher education has recently changed, making it clear that the employment of this digital tool in academic settings is no longer residual as Manca and Ranieri (2016) stressed in their study. It is highlighted that the integration of social media in educational processes is important, as it reduces the digital gap by allowing students to apply for new digital professions in a more equal way and even to start their own businesses online or with the support of digital tools which offer them real opportunities in this interconnected world. This is consistent with previous analyses, for example, one presented by Barrera-Verdugo and Villarroel-Villarroel (2022), who stressed that

it is essential to increase the exposure of undergraduate students to digital content published on social platforms. It is also important to understand what this digital channel offers to accelerate its integration into the teaching-learning process. However, to generate a change in the traditional educational conception, it is necessary to plan more active, creative, and labour market-oriented training to prepare multi skilled and technological professionals with a broad vision of the international business market. The new challenge is to take advantage of this digitalisation and exploitation of social networks in the international university environment. Therefore, we must remember that “the flow of people between countries accelerates as economies integrate and as higher education sectors restructure according to internationally defined standards of curriculum and training useful for global job markets” (Tokas et al., 2023, p.159).

This empirical study offers several recommendations and practical implications. First, in university education, it is crucial to foster the development and reinforcement of professional skills and knowledge among undergraduate students. To achieve this, educators should integrate digital tools and technologies, such as social media, into their teaching methods. However, the combined use of traditional, analogue approaches should also be considered, as this blend appears to shape more well prepared professionals for the international market. Second, the integration of an entrepreneurial, creative, and innovative mindset, enhanced by technology (referred to as technocreativity), emerges as a key factor in improving the teaching and learning process.

The limitations of this research are inherent to empirical studies, particularly regarding the sample size and the type of data collected. These constraints open avenues for future research, encouraging a more in-depth exploration of the subject through qualitative methods such as interviews or observations, as well as by expanding the sample to include university professors.

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