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# LinkedIn in sport management education: Developing the students' professional profile boosting the teaching-learning process

Samuel López-Carril <sup>a,b,\*</sup>, Mario Alguacil <sup>b</sup>, Christos Anagnostopoulos <sup>c</sup>

<sup>a</sup> Department of Physical Activity and Sports Science, Universidad de Castilla-La Mancha, s/n Carlos III Avenue, 45004, Toledo, Spain

<sup>b</sup> Department of Physical and Sports Education, Universitat de València, 3 Gascó Oliag St, 46020, Valencia, Spain

<sup>c</sup> UCLan Cyprus, Cyprus & Molde University College, Norway

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## ABSTRACT

Social media have burst into people's lives, transforming their personal and professional spheres. The sports industry has not been indifferent to these changes. Indeed, the management of these digital tools has become prized in workplace settings. Among all social media, LinkedIn has the strongest link to the professional world. Nevertheless, there is a gap in the literature so far regarding the incorporation of LinkedIn into sport management courses. Thus, this work aims to share the results of an educational innovation that uses LinkedIn as its main pedagogical element through blended-learning teaching method based on the learning by doing methodology. A total of 105 undergraduate sport management students from two Spanish universities participated in this study. A pre-test and a post-test were carried out to perform diverse statistical analyses to assess the educational experience's impact. The results show significant outcomes in students' professional profile development and interaction with the sport industry; class engagement and interaction between students and professors; and LinkedIn's suitability to develop the content of the relevant course. These results highlight the educational potential of LinkedIn and encourage sports management faculty to incorporate LinkedIn into their classes as a pedagogical resource.

## 1. Introduction

We live in an era where the digital revolution and rapid technological advancements have led to much of our time spent in an online environment (Kolokytha et al., 2015), impacting and reshaping different sectors such as the economy, communication, education or politics. Among technological innovations, social media have emerged as socialisation platforms (Quan-Haase & Sloan, 2017), revolutionising how humans interact and communicate, changing institutional structures and professional practices (van Dijck & Poell, 2013). For instance, business executives, consultants and decision-makers seek to understand and make the best use of the wide range of social media available (Kaplan, 2015). Indeed, these digital tools are the cornerstone of everyday life (Selwyn & Stirling, 2016), both in the professional and private sphere.

\* Corresponding author. Department of Physical Activity and Sports Science, Universidad de Castilla-La Mancha, s/n Carlos III Avenue, 45004, Toledo, Spain.

E-mail addresses: [samuel.lopezcarril@uclm.es](mailto:samuel.lopezcarril@uclm.es) (S. López-Carril), [mario.alguacil@uv.es](mailto:mario.alguacil@uv.es) (M. Alguacil), [CANagnostopoulos@uclan.ac.uk](mailto:CANagnostopoulos@uclan.ac.uk) (C. Anagnostopoulos).

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'Social media' is an umbrella concept (López-Carril et al., 2019) that according to Kaplan and Haenlein (2010, p. 61) encompasses "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of user-generated content". Despite its current rise and popularity, social media is not a recent phenomenon (López-Carril, Escamilla-Fajardo et al., 2020). Since the beginning of the century, social media have been appearing and disappearing (Stavros et al., 2014), making it possible to group them according to their main characteristics or uses. For instance, social networks (e.g., Facebook, Instagram, Pinterest, TikTok, Snapchat, LinkedIn) are best-known social media, possibly due to their highly interactive component. Nevertheless, given their heterogeneity, there is a wide diversity of social media types. Some of these include:

- microblogging (e.g., Twitter);
- social networks (e.g., Facebook, Instagram, TikTok, Pinterest, LinkedIn, Snapchat);
- media sharing services (e.g., YouTube, Twitch, Spotify);
- wikis (e.g., Wikipedia);
- blogs (e.g., Blogger, WordPress);
- chat and messaging (e.g., WhatsApp, Line, WeChat);
- project management (e.g., Slack, Trello);
- social news (e.g., Reddit, Digg);
- virtual learning environment platforms (e.g., Moodle, Blackboard);
- sport or fitness apps (e.g., Freeletics, Jefit, Sweat).

Regardless of the type of social media and its characteristics, the reality is that the number of social media users continues to rise. According to Statista (2021a), in 2020 over 3.6 billion people were using social media worldwide, which is close to half of the world's population. Furthermore, 4.41 billion social media users are expected to be reached by 2025.

The sports industry is aware of the rise of social media, being reshaped in both production and consumption (Li et al., 2019; Yan et al., 2019), transforming the way consumers relate to businesses and brands (Chmait et al., 2020), and becoming vehicles that contribute to entrepreneurial success (Aichner, 2019). Nowadays, social media connect a wide variety of sports sector actors (e.g., athletes, coaches, fans, leagues, teams, sport federations, journalists) in an increasingly direct and effective way (Marr & DeWaele, 2015; O'Boyle, 2014). Furthermore, social media is a powerful sport branding tool (e.g., Geurin-Eagleman & Clavio, 2015; Hambrick & Kang, 2015; Jason et al., 2020).

On the other hand, the COVID-19 pandemic, which has imposed numerous restrictions on sporting activities (Ratten, 2020a), has strengthened social media's role in the sports industry. Companies have been spurred to innovate to promote sport and preserve the consumer's interest (Hayes, 2020). For instance, during periods of citizen lockdown, decreed in many countries, individuals viewed and practised physical exercise at home through social media such as Instagram, TikTok, Facebook or WhatsApp. Organisations or individuals have had to change how they connect with their customers (Ratten, 2020b). This has resulted in reinforcing the importance of social media as a feature of management. Given the rise of social media in the sports industry and the demands and challenges that COVID-19 has generated, the training of future sport managers requires new pedagogical approaches to meet such challenges. (Ratten & Jones, 2020a). For instance, providing education in areas such as entrepreneurship, digitalisation, and innovation can be hugely beneficial to students (e.g., Ratten, 2020a; Ratten & Jones, 2020b). These aspects can be developed through social media, in a context where online and blended teaching methodologies have taken the spotlight to provide continuity in education due to restrictions on face-to-face teaching (López-Carril, Añó et al., 2020).

Expertise in using digital technologies for sport managers is increasingly in demand (Barneva & Brimkov, 2019; Manning et al., 2017). According to López-Carril, Anagnostopoulos et al. (2020), sport management faculty should educate students on how to develop the necessary digital skills to qualify them better to pursue their professional goals. Consequently, it is worth incorporating social media education from a professional perspective into sport management educational curricula to better prepare them for pursuing their professional goals. Nevertheless, the sport management education academic literature suggests a mismatch between student's expectations and employer demands (Lebel et al., 2015).

Considering that it is worthwhile for educators to have some insight into how social media are being integrated into teaching practices, the main objective of this paper is to present the research findings and educational impact derived from the use of LinkedIn during the development of a sport management university course. LinkedIn, the primary social media linked to professional career development and business (López-Carril, Anagnostopoulos et al., 2020) was introduced to develop students' professional skills and career development. Furthermore, as a novelty in social media education literature in sport management, the innovation presented through LinkedIn was introduced based on learning by doing methodology (see, Bruce & Bloch, 2012) where reflection is the central element of learning (Dewey, 1933).

## 2. Literature review

### 2.1. Reshaping education: social media in Higher Education

For some time, the Internet has transformed how teachers and students relate (Scott & Stanway, 2015). This change in relationships between different educational actors has reshaped the teaching-learning process. Considering the expansion of social media among the current student generation (Adams et al., 2018; Osgerby & Rush, 2015), it is not surprising that they have reached the university context; even if they were not initially conceived for educational purposes (Manca, 2020). Indeed, the Higher Education sector is being

transformed by all the changes initiated by social media (Komljenovic, 2019). Educators and students acknowledge the importance of incorporating these tools to deliver and evaluate courses (Stathopoulou et al., 2019).

The educational revolution that social media have produced calls for a redefinition of the teacher-student relationship given that the student generation regularly use digital devices and social media (Díaz-Baharona, 2020). For instance, social media allow faculty to transition from the rigid traditional face-to-face medium of teaching limited to space (classroom) and time (Monday to Friday timetable) restrictions. Furthermore, social media allow the notion of 24/7 that enables both students and lecturers to interact outside the formal learning time with more flexibility (Dzvapatsva et al., 2014). In the context of a pandemic, such advantages make social media a value-add tool when creating online or blended learning environments (López-Carril, Añó et al., 2020).

According to the literature (e.g., Chawinga, 2017; Evans, 2014; Feito & Brown, 2018; Kolokytha et al., 2015; Lebel et al., 2015; Manning et al., 2017; Menkhoff et al., 2015; Stathopoulou et al., 2019) social media enable a wide range of positive educational outcomes such as: enhancement of collaborative and organisational skills, fostering student engagement, stimulating creativity, favouring deeper learning, bringing students together, fostering a sense of community, increasing participation and interaction, promoting employability, and improving academic results. On the other hand, motivated and passionate teachers can profit from social media opportunities to explore and create new practices creating innovative teaching methods (Vandeyar, 2020). Several teachers are exploring technology to enhance their teaching and promote active learning for students (Tess, 2013). Furthermore, social media can enable faculty monitor the students understanding of the content taught in class (Menkhoff et al., 2015) as well as give precise, personalised public or private feedback to each student.

Despite the benefits that social media offer to both faculty and students, though there are numerous articles on this topic in the popular press, to date, studies that share empirical experiences about social media in the classroom are still limited (Tess, 2013). There is value in continuing to invest in practical research on the incorporation of social media in the Higher Education setting. Thus, faculty could better understand social media's educational potential and possible practical applications.

## 2.2. Social media in sport management education

In a recent bibliometric study on social media in sport conducted by López-Carril, Escamilla-Fajardo, et al. (2020), the authors indicated that the field of study had passed the initial embryonic stage setting it in a phase of expansion. Nevertheless, the authors detected a research gap in social media in sport management's educational field. Despite this gap, several studies have been published that gather social media educational experiences on this topic. On the one hand, Marr and DeWaele (2015) shared a proposal of specific rules and uses of Twitter within the sport management classroom relevant to sport management faculty members. Similarly, Feito and Brown (2018) shared an in-depth guide to teaching students how to create a Twitter account and provided management implications. Furthermore, their contribution provides faculty advice and tips to overcome hurdles related to social media introduction into college courses. Another related contribution was made by Sanderson and Browning (2015). The authors supported Twitter as a pedagogical tool and provided theoretical and practical advice to implement it in class successfully. Finally, Scott and Stanway (2015) introduced Twitter into the dynamics of a sport marketing course with two assessments and some weekly tasks. The results obtained demonstrated a positive increase in student engagement towards the course. Furthermore, studies reported positive educational outcomes in a diverse range of learning aspects such as student engagement, collaborative learning, discovery, creativity, sense of community, dissemination of information, instant feedback, participation and interaction.

Some studies analyse the possible impact of more than one social media platform on the course dynamics in the context of sport management. O'Boyle (2014) examined the practical uses of Facebook and Twitter within the context of a Sport and Recreation Management degree in an Australian University. The author highlighted the high increase in the level of interaction between students and academic staff. For its part, Manning et al. (2017) pointed that via some social media like Socrative and Twitter; educators may be able to move from traditional passive learning methodologies towards new more participative educational experiences, stimulating student interest and critical-thinking.

In addition to the above studies that are practical in nature, others incorporate social media into sport management education from different perspectives. For instance, Lebel et al. (2015) explored how sport management faculty use social media as a teaching and learning tool in the North American context. Although faculty highlighted the possible positive effects of social media in the educational context, most acknowledged that they introduced it in a limited way. The authors emphasised the potential disconnection between faculty digital pedagogies, student expectations, and the demands of the sports industry. From another angle, Pate and Bosley (2020), interviewed four professionals overseeing social media accounts for North American university sports departments to identify the digital and social media skills expected of sport management students. The results indicated that knowledge linked to content creation and planning, representing an organisation's brand, and the main trends of social media among its diverse platforms, are valued in the professional field of sport management.

Research shows how social media platforms serve for valuable professional learning purposes (Goodyear et al., 2014). According to López-Carril et al. (2019), there should be a real and continuous connection between what is taught in the classroom and professional skills sought after by industry. Universities cannot be negligent to the dynamics of the shifts in the sports industry and culture trends (Sanderson & Browning, 2015). Furthermore, sport management educators should understand the desires of industry professionals to adapt their course content to prepare students to enter the profession with the demanded skills and abilities (Pate & Bosley, 2020). Universities seek to develop the employability of their graduates (Dinning, 2017), especially given how competitive the sport management labour market has become (Miragaia & Soares, 2017). Accordingly, mastering social media linked to the professional world and stakeholders, such as LinkedIn, can help future sport management professionals create professional networks and promote employability (López-Carril et al., 2019).

### 2.3. Connecting students to the professional world through LinkedIn and the learning by doing methodology

LinkedIn is the most popular social media focused on professionalism and career development (López-Carril, Anagnostopoulos et al., 2020; Manca & Ranieri, 2016), used as a tool for personal or business purposes (Tess, 2013). Founded in 2002 by Reid Hoffman, Allen Blue, Konstantin Guericke, Eric Ly and Jean-Luc Vaillant, LinkedIn currently has 310 million active users (Omnicore, 2021). The platform self-reports more than 774 million users in more than 200 countries; over 50 million companies and 90,000 universities listed on LinkedIn; and over 20 million open jobs (LinkedIn, 2021).

Concerning LinkedIn's introduction to sport management education, the literature on incorporating LinkedIn into classrooms is scarce. Nevertheless, three papers have recently been published on this topic. Firstly, Brown and Pederson (2020) introduced LinkedIn into the dynamic of one group of sport marketing undergraduate course to investigate LinkedIn's potential to enhance or hinder the classroom community. To test this, one class used LinkedIn during one semester and another did not. The group that did not use LinkedIn showed stronger level of classroom community, diverging from the literature on social media's use for this purpose. Secondly, López-Carril, Anagnostopoulos et al., 2020 shared through a practice paper, a series of guidelines to encourage teachers to incorporate LinkedIn into sport management courses. Additionally, the authors emphasise the specific characteristics of LinkedIn that enhance entrepreneurship, innovation and the professional development of students. Thirdly, López-Carril, Añó et al. (2020) highlighted the possibilities of LinkedIn in generating a working environment for blended and online learning, where content can be developed, along with the professional profile of the students. The ease of combining LinkedIn with other social media such as YouTube and other educational material such as TED Talks was highlighted.

Although the literature on social media in sport management generates positive educational impacts, so far such work does not explicitly connect these experiences with learning methodologies (e.g., project-based learning, problem-based learning, design thinking, gamification). One of the main contributions of this work is the connection between LinkedIn and the educational methodology of learning by doing.

Learning by doing is the process whereby people make sense of their experiences, especially those experiences in which they actively engage in making things and exploring the world. It is both a conceptual designation applied to a wide variety of learning situations (in fact, as some would argue, to all learning), and a pedagogical approach in which teachers seek to engage learners in more hands-on, creative modes of learning (Bruce & Bloch, 2012, p. 1821).

Reflection is a central element of learning (Dewey, 1933), a skill that is reinforced through using LinkedIn. For instance, students must think about which professional brand they want to generate through LinkedIn and create content and design their LinkedIn profile accordingly. Faculty can also propose class debates in private class groups (López-Carril, Anagnostopoulos et al., 2020). Furthermore, students stimulate their capacity for reflection when creating their LinkedIn profile and a network of contacts according to their professional interests. This will enable them to explore and interact with the professional world present in LinkedIn through comments, private messages or LinkedIn post (see López-Carril, Anagnostopoulos et al., 2020).

In short, LinkedIn is an e-learning environment that favours the proposal of action-oriented educational activities. According to Kakouris and Morselli (2020), learning by doing implies firstly active participation in a planned event (action) followed by subsequent analysis and reflection about what has been experienced. For Rasmussen and Sørheim (2006), this learner-centred and action-oriented approach incorporates group interaction and networking as core elements. As outlined in the previous paragraph, all of these aspects are present in LinkedIn. Furthermore, in line with the type of educational approach of Hägg and Kurczewska (2021), LinkedIn brings not linear but continuous learning proposals. Students need to reflect and plan the actions to be carried out in LinkedIn community (e.g., modify the profile, create a post, comment) before executing them. Subsequently, they should analyse and reflect on these impacts to consider future actions. In this sense, the two phases of Pepin's learning model (2012, 2018), 1-planning and 2-implementing, are followed. The experiences of this dynamic and continuous process boost learning and generate knowledge.

To evidence what is outlined in this theoretical background section, this paper presents a study that explores the educational impact of LinkedIn introduced to sport management classes following the learning by doing methodology. In doing so, the paper brings a novel approach to the literature on social media in sport management education, enhancing students' professional profiles through LinkedIn. Furthermore, the students' background concerning social media including social media usage patterns is investigated, as it can influence on the research results. Therefore, considering all of the above, the following research questions were raised:

- RQ1. What are the social media usage patterns of sport management students?
- RQ2. What are sport management students' LinkedIn prior experiences and educational expectations in sport management education?
- RQ3. What are sport management students' perceptions of the benefits LinkedIn can have when used in sport management classes?

## 3. Methodology

### 3.1. Context and participants

The LinkedIn educational innovation was developed in three groups of undergraduate students in physical activity and sport sciences from two Spanish universities. A total of 105 students, 76 of them were men (72.4%) and 29 women (27.6%), participated in the research. Ninety-one students were enrolled in the 'Management and Organisation of Sporting Bodies and Events' course at the University of Valencia. Of these, 60 belonged to a class group at the Blasco Ibáñez campus and 31 at the Ontinyent campus. Finally, the

sample was completed by 14 students enrolled in the ‘Management Practices in Sports Institutions’ course at the University of Seville. The study was carried out in accordance with the Declaration of Helsinki (World Medical Association, 2013). Thus, all participants participated voluntarily guaranteeing their anonymity. Signed informed consent form from each participant was obtained so that the data obtained could be used for academic purposes.

### 3.2. Pedagogical procedure

This research is based on a longitudinal quasi-experimental quantitative design. To this end, an educational innovation was designed based on the introduction of LinkedIn as one of the central elements in the development of sport management courses through the learning by doing methodology. The innovation was developed in the second semester of the 2019–2020 academic year, starting on February 3 and concluding May 24. As an indispensable part of the educational innovation, students from the three groups that participated in the innovation (Valencia, Ontinyent and Seville), had to create a LinkedIn account. To do this, a specific, step-by-step, face-to-face session was held, providing students with two weeks of familiarisation, so that they could explore the primary features of LinkedIn.

The study was developed in the scope of blended learning. Face-to-face synchronous lectures were combined with asynchronous online learning through video tutorials where students were trained on the use and management possibilities of a LinkedIn account. The students also worked on specific content of the course in the private LinkedIn groups (Valencia, Ontinyent and Seville) and a further joint group that gathered together all the students and faculty involved in the innovation. Throughout the innovation, the students had to carry out an assessment inspired by the work of López-Carril, Anagnostopoulos et al. (2020).

While some activities were carried out individually on each student’s personal LinkedIn profile or through student interaction with the LinkedIn community, others were carried out in private LinkedIn chat groups. In the later, faculty members raised a variety of topics for discussion related to sport management, encouraging students to debate. The learning by doing methodology was the axis that guided the activities conducted, with the students being at the centre of the teaching-learning process. Thus, reflection, exploration and debate were features present in the activities to favour the learning process. For illustrative purposes, Table 1 shows five examples of activities to be carried out by students from their LinkedIn profile.

Students were assessed according to what they used LinkedIn in diverse settings, such as personal profile development, participation in LinkedIn’s private class groups, and when creating a network of contacts of their professional interest. The lecturer in charge of coordinating the innovation monitored the students’ work regularly, interacting with them through private written and audio messages on LinkedIn. The completion of all assignments accounted for 40% of the final mark for the theoretical part of the course.

### 3.3. Instrument and data analysis

A 30-item questionnaire based on previous literature on social media in teaching was used. First, thirteen items (see Table 2) were adapted to the LinkedIn context from Scott and Stanway (2015).

**Table 1**

Illustrative examples of activities carried out by students in the LinkedIn educational innovation.

	Description
Activity n.º 1	Elaborate the ‘about’ section of your LinkedIn profile. To do this, previously reflect on the following aspects: 1-What are your professional interests?, 2-What would you like to do in the future on a professional level?, and 3-What can you already offer to the LinkedIn community? When you have these aspects clear, include them in the text. Finally, remember to close it with a “call to action” so that you make it easy for profile visitors to connect with you.
Activity n.º 2	Explore the LinkedIn community by searching for 10 personal profiles and 5 private groups closely related to your professional interests. Explain why you have chosen each of these. Subsequently, try to connect with these profiles. Also, try to get admission to the LinkedIn groups.
Activity n.º 3	Once you have all the sections of your profile created, elaborate and publish a LinkedIn post open to the entire community, where you generate content that adds value to your personal brand. Try to tag contacts of interest in the publication and use hashtags that reflect relevant keywords to facilitate the dissemination and interaction of your publication. Subsequently, view the video tutorial in the ‘featured’ section of the profile so that you can incorporate your publication in that section and make it more visible.
Activity n.º 4	Activity to be done in the LinkedIn group of the course: “Big Data is one of the recently emerging trends in society, having increasingly more relevance in different fields: health, business, politics, logistics and, of course, in sports. As previous material to the discussion questions, visualise the attached video where this concept is introduced. Afterwards, and to open the debate, you can answer the following questions: 1-What do you think about the current role of Big Data in the context of sport? 2-How do you think data can help sport managers? Furthermore, do some research and locate an entity in the world of sport (brand, club, federation, league, enterprise, etc.) that uses Big Data as a management tool. Then, explain to your colleagues the use they are making of Big Data, and give your opinion on the matter. Please note that your chosen entity cannot coincide with the one of another colleague.
Activity n.º 5	Activity to perform in the LinkedIn group of the course: “One of the most used tools for the sport managers is the SWOT. A SWOT is a diagnostic tool from which to make strategic decisions. The SWOT is visually captured in a matrix with four fields (Weaknesses, Strengths, Threats and Opportunities). We provide you two documents to explore, where you can find more information about what a SWOT is and how to do it. Then, the activity consists of making a SWOT with the template provided on one of the following two options: 1-Make a SWOT about yourself and how you are to achieving your dream job, 2-Imagine that you are an entrepreneur and you are going to open a new business linked to the sports sector. Make a SWOT assessment of the current market situation related to that business. Once the SWOT is done, save the document in image format and share it in this post. Next, make an introduction where you indicate to the rest of your colleagues the chosen option, as well as 3–4 conclusions or decisions you would make, linked to the selected option and the SWOT you have made. Subsequently, choose the SWOT uploaded by a colleague, analyse it and provide him/her with feedback.

Second, seventeen items (see [Table 3](#)) were adapted to the LinkedIn context from [Adams et al. \(2018\)](#). The above items were chosen because they enable the exploration of the student's perceptions about the impact of the educational experience from a wide range of perspectives of the learning-teaching process. For instance, specific items related to LinkedIn's professional educational scope were included (e.g., items 1, 4, 5, 23, 24, 25, 29). Finally, questions to obtain socio-demographic and social media usage patterns data were also included (e.g., "How many hours a day do you spend on social media", "Where did you learn to use social media?").

Subsequently, the questionnaire was translated into Spanish and reviewed by a professional native English speaker fluent in Spanish. To ensure the design of the questionnaire and to identify and refine possible wording or interpretation problems, the questionnaire was piloted before the development of this innovation, with the students enrolled in the course 'Management and Organisation of Sporting Bodies and Events' of the University of Valencia during the academic course 2018–2019. Minor adjustments in wording and phrasing were made based on feedback.

The questionnaire was administered to the student body at two points in time and completed online through LimeSurvey. Firstly, it was completed by the students before the commencement of the educational experience (pre-test). A post-test was carried out after the students submitted their assignment. Students completed the survey before receiving specific individualised codes in order to match the pre-test with the post-test later, always respecting their anonymity. A 6-point Likert scale where 1 meant 'I strongly disagree' and 6 meant 'I strongly agree' was employed to rate the items.

The statistical package SPSS 25.0 was used to analyse the quantitative data obtained. Analyses were carried out to determine the distribution of frequencies and percentages of both sociodemographic aspects (in this case gender and course study group) and aspects linked to patterns of social media use. Comparisons of means were carried out by paired samples T-test, since the purpose was to find out whether the LinkedIn intervention carried out could lead to significant differences in students' perceptions. First, the analysis for related samples was carried out in all the items that formed the questionnaire. After that, the possible differences between men and women were studied. Finally, student's perceptions were also analysed according to the different class groups.

## 4. Results

### 4.1. Social media usage patterns

The results indicate that 93.3% of students use social media at least once a day, with 63.8% believing that they spend too many hours on it while 58.1% believe that they are somehow addicted. Concerning their opinion on social media use, 98.1% think people use social media too much. 98.1% stated that they access social media through a smartphone, while the second most used device is a laptop (71.4%), followed by a tablet (16.2%) and a desktop computer (8.6%). Regarding the context in which students learned to use social media, 94.3% of them learned to use it on their own, 43.8% through their friends, 9.5% through family, 11.4% at high school, 18.1% at university and 2.9% at work.

In terms of the social media used outside the university environment (see [Table 4](#)), the highest percentages were found in WhatsApp (100%), YouTube (97.1%) and Instagram (94.3%).

In contrast, looking at the social media that students use within the academic context (see [Table 5](#)), it can be observed that Moodle (72.4%), YouTube (60%) and WhatsApp (43.8%) are the most used social media for academic purposes.

Regarding the reasons for social media use (see [Table 6](#)), 88.6% of the sample indicate that they use social media to have fun, followed contact with friends (84.9%) and read news (80%). Finally, students were asked about the perceived relevance of social media to them in their daily lives. In the pre-test, respondents scored an average of 7.29 (SD = 1.39); while, the post-test results showed a slight increase, with an average of 7.47 (SD = 1.39).

### 4.2. Previous experiences of using LinkedIn and perceived level of usage competency

Before the beginning of the educational experience, 76.92% of the students indicated that they did not have a LinkedIn account, while 20.19% had an account but were not active users, and 2.88% had an account and were active users. To evaluate the impact of the

**Table 2**

First part of the questionnaire: Items adapted from [Scott and Stanway \(2015\)](#).

Items	
1	LinkedIn will keep/has kept me connected with what is happening in the sports industry
2	LinkedIn will keep/has kept me socially connected with peers in this class
3	LinkedIn will keep/has kept me connected with the lecturer in this course
4	LinkedIn will keep/has kept me connected with third parties
5	LinkedIn will allow/has allowed me to apply sport marketing principles to real-world examples
6	I will feel/felt more included in the course content because it has/had LinkedIn
7	I will feel/felt more engaged with this course because it has/had LinkedIn
8	I believe that LinkedIn will be/is relatively easy to use
9	I believe that LinkedIn will be/is an effective learning resource
10	I believe that LinkedIn will be/is an effective assessment item
11	I believe that LinkedIn aligns with the course objectives
12	I believe I will/did enjoy using LinkedIn this semester
13	I believe I will/did enjoy this course this semester

**Table 3**  
Second part of the questionnaire: Items adapted from Adams et al. (2018).

Items	
14	LinkedIn can be an interesting tool for instruction
15	LinkedIn can be interesting to get insight into fellow students' opinions
16	LinkedIn can be interesting to get insight into teachers' opinions
17	LinkedIn can be interesting to learn how to formulate your own opinion
18	LinkedIn can affect the productivity within learning and instruction
19	LinkedIn can increase the flexibility within learning and instruction
20	LinkedIn can favour the boundaries between students (i.e., group cohesion)
21	LinkedIn can make me more connected with the teacher and teaching assistants
22	LinkedIn can close the gap between formal and informal learning
23	LinkedIn is a good tool to keep posted about sport topics
24	LinkedIn gives you the opportunity to follow important people
25	LinkedIn can be a good tool to become acquainted with relevant expertise in our field
26	Using LinkedIn in education can fade the border between education and private life
27	LinkedIn can be a good tool to learn how to filter information
28	LinkedIn can be helpful to open your critical mind to sport-related topics
29	LinkedIn can be helpful to broaden my professional network
30	The added value of LinkedIn depends on how you personally deal with it

**Table 4**  
Students' use of social media non-academic purposes.

YouTube		Twitter		LinkedIn		Instagram		Snapchat		WhatsApp	
No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
3 (2.9)	102 (97.1)	51 (48.6)	54 (51.4)	93 (88.6)	12 (11.4)	6 (5.7)	99 (94.3)	100 (95.2)	5 (4.8)	0	105 (100)
Pinterest		TikTok		Vimeo		Facebook		Moodle		Wikis	
No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
88 (83.8)	17 (16.2)	104 (99)	1 (1)	103 (98.1)	2 (1.9)	63 (60)	42 (40)	55 (52.4)	50 (47.6)	100 (95.2)	5 (4.8)

**Table 5**  
Students' use of social media for academic purposes.

YouTube		Twitter		LinkedIn		Instagram		Snapchat		WhatsApp	
No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
42 (40)	63 (60)	81 (77.1)	24 (22.9)	78 (74.3)	27 (25.7)	85 (81)	20 (19)	105 (100)	0	59 (56.2)	46 (43.8)
Pinterest		TikTok		Vimeo		Facebook		Moodle		Wikis	
No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
103 (98.1)	2 (1.9)	105 (100)	0	105 (100)	0	97 (92.4)	8 (7.6)	29 (27.6)	76 (72.4)	93 (88.6)	12 (11.4)

**Table 6**  
Motivations for using social media.

Have fun		Meeting people		Contact with friends		Contact with family	
No	Yes	No	Yes	No	Yes	No	Yes
12 (11.4)	93 (88.6)	71 (67.6)	34 (32.4)	11 (15.1)	94 (84.9)	37 (35.2)	68 (64.8)
To work		Read news		Search for information		University context	
No	Yes	No	Yes	No	Yes	No	Yes
59 (56.2)	46 (43.8)	21 (20)	84 (80)	24 (22.9)	81 (77.1)	32 (30.5)	73 (69.5)

educational innovation on LinkedIn usage competence level perceived by students, they were asked in both the pre-test and the post-test to rate this perceived competence level between 1 and 10. In the pre-test students rated an average of 1.84 (SD = 1.48), a value close to the minimum value, whereas in the post-test, students scored an average of 7.11 (SD = 1.44) which was a large increase in comparison.

#### 4.3. Sport management students' perceptions of the impact of the LinkedIn educational experience

Concerning the results of the items adapted from Scott and Stanway (2015) and Adams et al. (2018), as outlined in Table 7, in all the items the means obtained in the post-test are higher than the pre-test means. This difference is significant ( $p < .001$ ) in 28 of the 30

items. The highest mean is obtained in the post-test measure of item 29 ( $M = 5.43$ ;  $SD = 0.86$ ), which states “LinkedIn can be useful to broaden my professional network” while the lowest mean appears in the pre-test measure of item 2 ( $M = 3.04$ ;  $SD = 1.31$ ), which states: “LinkedIn will keep me socially connected with peers in this class”.

Thereafter, to determine whether there might be differences depending on the gender or the course group to which students belonged to, the overall means of both the pre-test and post-test measures were analysed. Firstly, the comparison according to gender is

**Table 7**  
Comparison of pre-test and post-test means.

Item	Measure	$\bar{X}$	SD	P
1. LinkedIn will keep/has kept me connected with what is happening in the sports industry	Pre	3.75	1.21	***
	Post	4.38	1.26	
2. LinkedIn will keep/has kept me socially connected with peers in this class	Pre	3.04	1.31	***
	Post	4.99	1.18	
3. LinkedIn will keep/has kept me connected with the lecturer in this course	Pre	3.69	1.22	***
	Post	5.08	.98	
4. LinkedIn will keep/has kept me connected with third parties	Pre	3.98	1.23	
	Post	4.09	1.17	
5. LinkedIn will allow/has allowed me to apply sport marketing principles to real-world examples	Pre	3.70	1.33	
	Post	3.92	1.22	
6. I will feel/felt more included in the course content because it has/had LinkedIn	Pre	3.42	1.25	***
	Post	4.44	1.21	
7. I will feel/felt more engaged with this course because it has/had LinkedIn	Pre	3.38	1.25	***
	Post	4.78	1.30	
8. I believe that LinkedIn will be/is relatively easy to use	Pre	3.93	1.29	***
	Post	4.83	1.03	
9. I believe that LinkedIn will be/is an effective learning resource	Pre	4.26	1.27	***
	Post	5.15	1.04	
10. I believe that LinkedIn will be/is an effective assessment item	Pre	3.69	1.22	***
	Post	4.81	1.09	
11. I believe that LinkedIn aligns with the course objectives	Pre	4.02	1.24	*
	Post	4.66	1.17	
12. I believe I will/did enjoy using LinkedIn this semester	Pre	3.67	1.30	***
	Post	4.69	1.28	
13. I believe I will/did enjoy this course this semester	Pre	3.82	1.49	***
	Post	4.33	1.40	
14. LinkedIn can be an interesting tool for instruction	Pre	4.31	1.29	***
	Post	4.89	1.10	
15. LinkedIn can be interesting to get insight into fellow students' opinions	Pre	4.12	1.19	***
	Post	5.38	.91	
16. LinkedIn can be interesting to get insight into teachers' opinions	Pre	4.18	1.16	***
	Post	5.25	.92	
17. LinkedIn can be interesting to learn how to formulate your own opinion	Pre	4.01	1.28	***
	Post	5.26	1.04	
18. LinkedIn can affect the productivity within learning and instruction	Pre	4.15	1.20	***
	Post	4.91	.92	
19. LinkedIn can increase the flexibility within learning and instruction	Pre	4.21	1.24	***
	Post	4.97	.99	
20. LinkedIn can favour the boundaries between students (i.e., group cohesion)	Pre	3.94	1.24	***
	Post	4.80	1.11	
21. LinkedIn can make me more connected with the teacher and teaching assistants	Pre	4.02	1.21	***
	Post	5.26	.79	
22. LinkedIn can close the gap between formal and informal learning	Pre	3.94	1.13	***
	Post	4.83	1.03	
23. LinkedIn is a good tool to keep posted about sport topics	Pre	4.01	1.20	***
	Post	4.87	1.01	
24. LinkedIn gives you the opportunity to follow important people	Pre	4.25	1.27	***
	Post	5.27	1.00	
25. LinkedIn can be a good tool to become acquainted with relevant expertise in our field	Pre	4.19	1.23	***
	Post	4.91	.99	
26. Using LinkedIn in education can fade the border between education and private life	Pre	3.48	1.16	*
	Post	3.79	1.34	
27. LinkedIn can be a good tool to learn how to filter information	Pre	4.10	1.18	***
	Post	4.80	.93	
28. LinkedIn can be helpful to open your critical mind to sport-related topics	Pre	3.96	1.20	***
	Post	5.02	1.01	
29. LinkedIn can be helpful to broaden my professional network	Pre	4.64	1.21	***
	Post	5.43	.86	
30. The added value of LinkedIn depends on how you personally deal with it	Pre	4.46	1.20	***
	Post	5.40	.83	

Note: \*\*\* $p < .001$ .

presented (see Table 8). The mean of the post-test measure is higher than in the pre-test measure, with significant differences in both men and women, with mean values of 4.80 (SD = 0.71) and 4.93 (SD = 0.69), respectively.

Following the aforementioned analysis, the comparative means' values were analysed; in this case, taking into account the three groups that participated in the study (see Table 9). Firstly, concerning the group from the University of Valencia (Ontinyent campus), it can be observed that the mean values increased from 4.14 (SD = 0.94) in the pre-test measure to 4.77 (SD = 0.59) in the post-test measure, with this difference being significant ( $p < .01$ ). Secondly, the group from the University of Seville, experienced a greater increase from pre-test to post-test, being again significant ( $p < .001$ ), where the mean values went from 4.60 (SD = 0.59) to 5.29 (SD = 0.44). Finally, concerning the results of the group from the University of Valencia (Blasco Ibáñez campus), there is also significant growth in the mean values after the intervention ( $p < .001$ ), obtaining a final mean value of 4.77 (SD = 0.77) which improves upon the pre-test 3.69 (SD = 0.87).

## 5. Discussion

This section is structured according to the three research questions, concluding with an exposition of the limitations of the study and possible future lines of research.

### 5.1. RQ1: What are the social media usage patterns of sport management students?

It can be appreciated from the results show that most students use social media daily, reflecting the role these tools play in their day-to-day lives (Adams et al., 2018; López-Carril et al., 2019; Sanderson & Browning, 2015). On the other hand, the dark side of social media is also present in the findings, with over half of the participants feeling that they use social media too much and even have some addiction to it. These results are in line with what authors have stated (e.g., Baccarella et al., 2018; Bailin et al., 2014; Demetis, 2020), who recommend that social media be used responsibly because associated risk. Therefore, it is relevant to teach the students to use social media responsibly when introducing these tools into sport management classes.

Despite the daily importance of social media for students, the results reflect that students at the university have been taught little about social media use. Furthermore, they do not use it so much for academic purposes. These results coincide with what several authors have already pointed out (e.g., Lebel et al., 2015; Manca & Ranieri, 2016; O'Boyle, 2014), concerning the low inclusion level of social media in university curricula. Given the current importance of social media in the sports industry (Filo et al., 2015; López-Carril et al., 2019), sport management faculty must rethink their educational methodologies to introduce more management tools -such as social media- which are fundamental for students' employability.

Regarding the student's preference for technological devices, smartphones has been the most preferred device to use social media. This is in line with what was exposed by Tu and Hwang (2020), highlighting the growing role that mobile devices can play in education. In this case, LinkedIn is adapted to support this, as students were able to perform LinkedIn activities from their mobile devices. Thus facilitating a more attractive educative approach for students. Students' usage preferences outside the academic context were WhatsApp, YouTube, and Instagram. These preferences could serve as a clue to explore the inclusion of these social media in sport management classes, as students are already familiar and like its use. In contrast, students identify Moodle as the most used social media for academic purposes. Nevertheless, although all students used it in the course context, as it was the official communication channel between teachers and students, some did not recognise it as social media. The issue of what is or is not social media is not new, having been addressed in several studies (e.g., Kaplan & Haenlein, 2010; López-Carril et al., 2019). To avoid terminological confusions, further studies still need to establish the boundaries of what social media is or is not.

### 5.2. RQ2: What are sport management students' LinkedIn prior experiences and educational expectations in sport management education?

Even though LinkedIn is the most recognised professional social media (Manca & Ranieri, 2016), most students did not have an account before starting the educational innovation, or were not active users. These values reflect the lack of knowledge about social media from a professional perspective since LinkedIn is the most prominent social media (López-Carril, Anagnostopoulos et al., 2020), and it was practically unused by students before the beginning of the innovation. Thus, these results may be appealing for LinkedIn managers, as in July 2021 only 19% of all LinkedIn users were under 25 years old (Statista, 2021b). Thus, students are a niche target population to increase LinkedIn's number of active users.

Although most of the students did not have an active LinkedIn profile, the pre-test showed an initial positive predisposition towards the educational potential of LinkedIn with averages above three points on all items. Therefore, these initial expectations may give

**Table 8**  
Comparison of pre-test and post-test means according to gender.

Gender	Measure	$\bar{X}$	SD	P
Men	Pre	3.92	.86	***
	Post	4.80	.71	
Women	Pre	4.00	1.05	***
	Post	4.93	.69	

Note: \*\*\* $p < .001$ .

**Table 9**  
Comparison of pre-test and post-test means according to course group.

Course group	Measure	$\bar{X}$	SD	P
University of Valencia (Ontinyent campus)	Pre	4.14	.94	**
	Post	4.77	.59	
University of Seville	Pre	4.60	.59	***
	Post	5.29	.44	
University of Valencia (Blasco Ibáñez Campus)	Pre	3.69	.87	***
	Post	4.77	.77	

Note: \*\*p < .01; \*\*\*p < .001.

teachers confidence when considering future uses of LinkedIn in the classroom. Indeed, as [Tess \(2013\)](#) points out, the introduction of digital technology in the classroom in itself engages students.

### 5.3. RQ3: What are sport management students' perceptions of the benefits LinkedIn can have when used in sport management classes?

The results, with significant increases from pre-test to post-test values in 28 of the 30 items, highlight the wide and rich educational benefits that the inclusion of LinkedIn in sport management classes can have through the learning by doing methodology. Focusing on specific aspects, such as those linked to students' professional development and their contact with the sport industry, the post-test values of the items linked to this area (see items 1, 23, 24, 25, and 29) are high indicating the potential of LinkedIn for professional purposes. These results are in line with the statements of authors such as [López-Carril, Anagnostopoulos et al. \(2020\)](#) and [Tess \(2013\)](#) who highlight the potential of LinkedIn as a tool to develop the professional profile of students. Furthermore, we agree with [Stathopoulou et al. \(2019\)](#), considering that LinkedIn can stimulate students' future employability.

The LinkedIn educational experience conducted also reflects this tool's potential as a social media that facilitates interaction both among students and between students and faculty (see post-test values of items 2, 3, 15, 16, 20 and 21), strengthening the relationship between all participants in the classroom environment. Thus, coinciding with the emphasis on social media's value as an interactive tool in previous studies (e.g., [O'Boyle, 2014](#); [Sanderson & Browning, 2015](#); [Scott & Stanway, 2015](#)). In addition, as several studies on social media in the university field reflect (e.g., [Adams et al., 2018](#); [Marr & DeWaele, 2015](#); [Scott & Stanway, 2015](#)), LinkedIn has shown to be a social media that positively boost different elements of the teaching-learning process such as student engagement, learning productivity and learning flexibility (see post-test values of items 6, 7, 9, 10, 14, 18 and 19).

Concerning two items where no significant differences were found (see pre-test and post-test values of items 4 and 5), it may be remarkable that there were no significant differences being aspects popularly associated with LinkedIn ([Komljenovic, 2019](#)). Nevertheless, throughout the conducted LinkedIn experience, the training and activities proposed and provided to the students did not go in-depth into the use of LinkedIn as a marketing tool, nor did the students have to interact with third parties. Therefore, considering that social media were not designed for teaching purposes ([Manca & Ranieri, 2016](#)), it is important what educational methodologies and focus each faculty member employs to maximise social media driven-learning potential.

The potential of LinkedIn in the field of sport management is unique both for its own characteristics linked to the professional field, and its capacity to be adapted to the specific objectives in each course. Furthermore, the students indicated that LinkedIn is easy and enjoyable to use. Since the positive results indicate that LinkedIn can be a suitable educational resource for sport management lecturers. Furthermore, as [Manning et al. \(2017\)](#) pointed out, social media promote more participatory methodologies that awaken students' interest by being protagonists in the teaching-learning process. In this sense, this study is the first to link the learning by doing methodology with LinkedIn in sport management education, obtaining positive results. LinkedIn, due to its characteristics, allows the creation of a controlled work environment through private groups, where the teacher can guide the student's task through debates that stimulate reflection. Furthermore, students will find an environment open to their exploration, deciding on how to build their profile, what type of content to generate (i.e., LinkedIn's post) or which contacts are relevant to create their professional network.

### 5.4. Limitations and future research lines

This study is not exempt from certain (de)limitations that should make the results be received with caution. However, acknowledging them can be a starting point for future studies. Firstly, the educational experience conducted did not have a control group to compare the results, which would have ensured that the results obtained are due to the educational proposal made and not to other variables. Therefore, it is advisable to carry out similar experiences with a control group in the future. Secondly, the research sample was not large, although it is similar to other studies in the scope studied (e.g., [Adams et al., 2018](#); [Brown & Pederson, 2020](#); [Scott & Stanway, 2015](#)). Thus, further studies with larger samples and different cultural contexts would be advisable to make generalisations and comparisons. Thirdly, the research instrument was adapted from the questionnaires developed by [Scott and Stanway \(2015\)](#) and [Adams et al. \(2018\)](#) used to assess Twitter educational experiences. As LinkedIn has different features, it would be interesting to build and to validate a specific instrument to measure the educational impact of LinkedIn. Fourthly, a 6-point Likert scale was used in the instrument to maintain consistency with the work of and [Scott and Stanway \(2015\)](#) and [Adams et al. \(2018\)](#), both of whom used this type of scale. Since there is no neutral central value, bias in the responses may occur and should be considered. Finally, as the number of studies on the introduction of LinkedIn into the university setting, and particularly in the context of sport management is limited, the

discussion has been set up compared educational experiences that introduced other social media. Therefore, more educational experiences with LinkedIn are needed to assess LinkedIn's impact on sport management education more accurately.

## 6. Conclusions

This work is the first that examined sport management students' perceptions of LinkedIn when used as an educational learning tool through the learning by doing methodology. The results show significant outcomes in areas such as the professional profile development of students and interaction with the sport industry; increased class engagement and interaction between students and teachers; and a suitable tool to use in the teaching-learning process to develop the course content.

The sports industry demands the mastery of digital skills from future professionals. Among these digital elements, social media stands out as a tool of which its use and role in the context of both sport and education has been enhanced by the effects of the COVID-19 pandemic. Sport management faculty cannot be indifferent to the sports industry's needs and the student's interest in social media. Therefore, it is essential to provide meaningful learning experiences to students using social media from a professional perspective. In this respect, LinkedIn enables the first contact between students and the professional world in a learning environment controlled by the teaching staff, who will guide the students' training process. Furthermore, LinkedIn's characteristics enable teachers to set tasks through the learning by doing methodology. Therefore, students can explore the sport professional field on their own. For all these reasons, it is suggested to the sport management faculty to introduce LinkedIn into the dynamics of their courses.

## Authors' contributions

Samuel López-Carril: Investigation, Conceptualization, Methodology, Writing original draft.

Mario Alguacil: Methodology, Data curation, Formal analysis.

CA: Supervision, Writing - review & editing.

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## Declaration of competing interest

The authors declare that they have no competing interests.

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## References

- Adams, B., Raes, A., Montrieux, H., & Schellens, T. (2018). "Pedagogical tweeting" in higher education: Boon or bane? *International Journal of Educational Technology in Higher Education*, 15(1), Article 19. <https://doi.org/10.1186/s41239-018-0102-5>
- Aichner, T. (2019). Football clubs' social media use and user engagement. *Marketing Intelligence & Planning*, 37(3), 242–257. <https://doi.org/10.1108/MIP-05-2018-0155>
- Baccarella, C. V., Wagner, T. F., Kietzmann, J. H., & McCarthy, I. P. (2018). Social media? It's serious! Understanding the dark side of social media. *European Management Journal*, 36(4), 431–438. <https://doi.org/10.1016/j.emj.2018.07.002>
- Bailin, A., Milanaik, R., & Adesman, A. (2014). Health implications of new age technologies for adolescents. *Current Opinion in Pediatrics*, 26(5), 605–619. <https://doi.org/10.1097/mop.0000000000000140>
- Barneva, R. P., & Brimkov, V. E. (2019). Teaching data analytics to sport management majors: A practical approach. In L. Uden, D. Liberona, G. Sánchez, & S. Rodríguez-González (Eds.), *Learning technology for education challenges. LTEC 2019. Communications in computer and information science* (pp. 408–417). Cham: Springer. [https://doi.org/10.1007/978-3-030-20798-4\\_35](https://doi.org/10.1007/978-3-030-20798-4_35)
- Brown, B., & Pederson, J. A. (2020). LinkedIn to classroom community: Assessing classroom community on the basis of social media usage. *Journal of Further and Higher Education*, 44(3), 341–349. <https://doi.org/10.1080/0309877X.2018.1541973>
- Bruce, B. C., & Bloch, N. (2012). Learning by doing. In N. M. Seel (Ed.), *Encyclopedia of the sciences of learning* (pp. 1821–1824). Cham: Springer. [https://doi.org/10.1007/978-1-4419-1428-6\\_544](https://doi.org/10.1007/978-1-4419-1428-6_544)
- Chawinga, W. D. (2017). Taking social media to a university classroom: Teaching and learning using Twitter and blogs. *International Journal of Educational Technology in Higher Education*, 14, 1–19. <https://doi.org/10.1186/s41239-017-0041-6>

- Chmait, N., Westerbeek, H., Eime, R., Robertson, S., Sellitto, C., & Reid, M. (2020). Tennis influencers: The player effect on social media engagement and demand for tournament attendance. *Telematics and Informatics*, 50, Article 101381. <https://doi.org/10.1016/j.tele.2020.101381>
- Demetis, D. S. (2020). Breaking bad online: A synthesis of the darker sides of social networking sites. *European Management Journal*, 38(1), 33–44. <https://doi.org/10.1016/j.emj.2019.12.013>
- Dewey, J. (1933). *How We think*. Prometheus Books.
- Díaz-Baharona, J. (2020). Retos y oportunidades de la tecnología móvil en la educación física. *Retos*, 37, 763–773. <https://doi.org/10.47197/retos.v37i37.68851>
- van Dijck, J., & Poell, T. (2013). Understanding social media logic. *Media and Communication*, 1(1), 2–14. <https://doi.org/10.17645/mac.v1i1.70>
- Dinning, T. (2017). Preparing sports graduates for employment: Satisfying employers expectations. *Higher Education, Skills and Work-based Learning*, 7(4), 354–368. <https://doi.org/10.1108/HESWBL-02-2017-0017>
- Dzvapatsva, G. P., Mitrovic, Z., & Dietrich, A. D. (2014). Use of social media platforms for improving academic performance at Further Education and Training Colleges. *South African Journal of Information Management*, 16(1), a604. <https://doi.org/10.4102/sajim.v16i1.604>
- Evans, C. (2014). Twitter for teaching: Can social media be used to enhance the process of learning. *British Journal of Educational Technology*, 45(5), 902–915. <https://doi.org/10.1111/bjet.12099>
- Feito, Y., & Brown, C. (2018). A practical approach to incorporating Twitter in a college course. *Advances in Physiology Education*, 42(1), 152–158. <https://doi.org/10.1152/advan.00166.2017>
- Filo, K., Lock, D., & Karg, A. (2015). Sport and social media research: A review. *Sport Management Review*, 18(2), 166–181. <https://doi.org/10.1016/j.smr.2014.11.001>
- Geurin-Eagleman, A. N., & Clavio, G. (2015). Utilising social media as a marketing communication tool: An examination of mainstream and niche sport athletes' Facebook pages. *International Journal of Sport Management*, 16(2), 488–497. <http://hdl.handle.net/10072/141508>
- Goodyear, V. A., Casey, A., & Kirk, D. (2014). Tweet me, message me, like me: Using social media to facilitate pedagogical change within an emerging community of practice. *Sport, Education and Society*, 19(7), 927–943. <https://doi.org/10.1080/13573322.2013.858624>
- Hägg, G., & Kurczewska, A. (2021). Toward a learning philosophy based on experience in entrepreneurship education. *Entrepreneurship Education and Pedagogy*, 4(1), 4–29. <https://doi.org/10.1177/2515127419840607>
- Hambrick, M. E., & Kang, S. J. (2015). Pin it: Exploring how professional sports organisations use Pinterest as a communications and relationship-marketing tool. *Communication & Sport*, 3(4), 434–457. <https://doi.org/10.1177/2167479513518044>
- Hayes, M. (2020). Social media and inspiring physical activity during COVID-19 and beyond. *Managing Sport and Leisure*, 1–8. <https://doi.org/10.1080/23750472.2020.1794939>
- Jason, P., Doyle, J. P., Su, Y., & Kunkel, T. (2020). *Athlete branding via social media: Examining the factors influencing consumer engagement on Instagram*. European Sport Management Quarterly. <https://doi.org/10.1080/16184742.2020.1806897>
- Kakouris, A., & Morselli, D. (2020). Addressing the pre/post-university pedagogy of entrepreneurship coherent with learning theories. In S. Sawang (Ed.), *Entrepreneurship education. Contributions to management science* (pp. 35–58). Cham: Springer. [https://doi.org/10.1007/978-3-030-48802-4\\_3](https://doi.org/10.1007/978-3-030-48802-4_3)
- Kaplan, A. M. (2015). Social media, the digital revolution, and the business of media. *JMM International Journal on Media Management*, 17(4), 197–199. <https://doi.org/10.1080/14241277.2015.1120014>
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! the challenges and opportunities of social media. *Business Horizons*, 53(1), 59–68. <https://doi.org/10.1016/j.bushor.2009.09.003>
- Kolokytha, E., Loutrouki, S., Valsamidis, S., & Florou, G. (2015). Social media networks as a learning tool. *Procedia Economics and Finance*, 19, 287–295. [https://doi.org/10.1016/S2212-5671\(15\)00029-5](https://doi.org/10.1016/S2212-5671(15)00029-5)
- Komljenovic, J. (2019). LinkedIn, platforming labour, and the new employability mandate for universities. *Globalisation, Societies and Education*, 17(1), 28–43. <https://doi.org/10.1080/14767724.2018.1500275>
- Lebel, K., Danylichuk, K., & Millar, P. (2015). Social media as a learning tool: Sport management faculty perceptions of digital pedagogies. *Sport Management Education Journal*, 9(1), 39–50. <https://doi.org/10.1123/smej.2014-0013>
- Li, B., Dittmore, S. W., Scott, O. K. M., Lo, W.-J., & Stokowski, S. (2019). Why we follow: Examining motivational differences in following sport organisations on Twitter and Weibo. *Sport Management Review*, 22(3), 335–347. <https://doi.org/10.1016/j.smr.2018.04.006>
- LinkedIn. (2021). *About us. Statistics*. <https://news.linkedin.com/about-us#statistics>.
- López-Carril, S., Anagnostopoulos, C., & Parganas, P. (2020). Social media in sport management education: Introducing LinkedIn. *Journal of Hospitality, Leisure, Sports and Tourism Education*, 27, Article 100262. <https://doi.org/10.1016/j.jhlste.2020.100262>
- López-Carril, S., Anó, V., & González-Serrano, M. H. (2020). Introducing TED Talks as a pedagogical resource in sport management education through YouTube and LinkedIn. *Sustainability*, 12(23), 1–17. <https://doi.org/10.3390/su122310161>
- López-Carril, S., Escamilla-Fajardo, P., González-Serrano, M. H., Ratten, V., & González-García, R. J. (2020). The rise of social media in sport: A bibliometric analysis. *International Journal of Innovation and Technology Management*, 17(6), Article 2050041. <https://doi.org/10.1142/S0219877020500418>
- López-Carril, S., Villamón, M., & Anó, V. (2019). Conceptualización de los medios sociales: Oportunidades para la gestión del deporte. *Retos*, 36, 578–583. <https://doi.org/10.47197/retos.v36i36.68572>
- Manca, S. (2020). Snapping, pinning, liking or texting: Investigating social media in higher education beyond Facebook. *The Internet and Higher Education*, 44, Article 100707. <https://doi.org/10.1016/j.iheduc.2019.100707>
- Manca, S., & Ranieri, M. (2016). Facebook and the others. Potentials and obstacles of Social Media for teaching in higher education. *Computers & Education*, 95, 216–230. <https://doi.org/10.1016/j.compedu.2016.01.012>
- Manning, R., Keiper, M., & Jenny, S. (2017). Pedagogical innovations for the millennial sport management student: Socratic and Twitter. *Sport Management Education Journal*, 11(1), 45–54. <https://doi.org/10.1123/smej.2016-0014>
- Marr, J., & DeWaele, C. S. (2015). Incorporating Twitter within the sport management classroom: Rules and uses for effective practical application. *Journal of Hospitality, Leisure, Sports and Tourism Education*, 17, 1–4. <https://doi.org/10.1016/j.jhlste.2015.05.001>
- Menkhoff, T., Chay, Y. W., Bengtsson, M. L., Woodard, C. J., & Gan, B. (2015). Incorporating microblogging (“tweeting”) in higher education: Lessons learnt in a knowledge management course. *Computers in Human Behavior*, 51(B), 1295–1302. <https://doi.org/10.1016/j.chb.2014.11.063>
- Miragaia, D. A. M., & Soares, J. A. P. (2017). Higher education in sport management: A systematic review of research topics and trends. *Journal of Hospitality, Leisure, Sports and Tourism Education*, 21(A), 101–116. <https://doi.org/10.1016/j.jhlste.2017.09.001>
- O'Boyle, I. (2014). Mobilising social media in sport management education. *Journal of Hospitality, Leisure, Sports and Tourism Education*, 15(1), 58–60. <https://doi.org/10.1016/j.jhlste.2014.05.002>
- Omnicores. (2021, September 05). *LinkedIn by the numbers: Stats, demographics & fun facts*. <https://www.omnicoreagency.com/linkedin-statistics/>.
- Osgerby, J., & Rush, D. (2015). An exploratory case study examining undergraduate accounting students' perceptions of using Twitter as a learning support tool. *International Journal of Management in Education*, 13(3), 337–348. <https://doi.org/10.1016/j.ijme.2015.10.00>
- Pate, J. R., & Bosley, A. T. (2020). Understanding the skills and competencies athletic department social media staff seek in sport management graduates. *Sport Management Education Journal*, 14(1), 48–51. <https://doi.org/10.1123/smej.2019-0032>
- Pepin, M. (2012). Enterprise education: A Deweyan perspective. *Education + Training*, 54(8–9), 801–812. <https://doi.org/10.1108/00400911211274891>
- Pepin, M. (2018). Learning to be enterprising in school through an inquiry-based pedagogy. *Industry and Higher Education*, 32(6), 418–429. <https://doi.org/10.1177/0950422218802536>
- Quan-Haase, A., & Sloan, L. (2017). Introduction to the handbook of social media research methods: Goals, challenges and innovations. In L. Sloan, & A. Quan-Haase (Eds.), *The SAGE handbook of social media research methods* (pp. 1–9). SAGE Publications, Ltd. <https://doi.org/10.4135/9781473983847.n1>
- Rasmussen, E. A., & Sørheim, R. (2006). Action-based entrepreneurship education. *Technovation*, 26(2), 185–194. <https://doi.org/10.1016/j.technovation.2005.06.012>

- Ratten, V. (2020a). Coronavirus disease (COVID-19) and sport entrepreneurship. *International Journal of Entrepreneurial Behavior & Research*, 26(6), 1379–1388. <https://doi.org/10.1108/IJEBR-06-2020-0387>
- Ratten, V. (2020b). Coronavirus and international business: An entrepreneurial ecosystem perspective. *Thunderbird International Business Review*, 62(5), 629–634. <https://doi.org/10.1002/tie.22161>
- Ratten, V., & Jones, P. (2020a). Covid-19 and entrepreneurship education: Implications for advancing research and practice. *International Journal of Management in Education*, 19(1), Article 100432. <https://doi.org/10.1016/j.ijme.2020.100432>
- Ratten, V., & Jones, P. (2020b). Entrepreneurship and management education: Exploring trends and gaps. *International Journal of Management in Education*, 19(1), Article 100431. <https://doi.org/10.1016/j.ijme.2020.100431>
- Sanderson, J., & Browning, B. (2015). From the physical to the social: Twitter as a pedagogical innovation in the sport communication and sport management classroom. *Sport Management Education Journal*, 9(2), 124–131. <https://doi.org/10.1123/SMEJ.2015-0003>
- Scott, O. K. M., & Stanway, A. R. (2015). Tweeting the lecture: How social media can increase student engagement in higher education. *Sport Management Education Journal*, 9(2), 91–101. <https://doi.org/10.1123/SMEJ.2014-0038>
- Selwyn, N., & Stirling, E. (2016). Social media and education... now the dust has settled. *Learning, Media and Technology*, 41(1), 1–5. <https://doi.org/10.1080/17439884.2015.1115769>
- Stathopoulou, A., Siamagka, N., & Christodoulides, G. (2019). A multi-stakeholder view of social media as a supporting tool in higher education: An educator-student perspective. *European Management Journal*, 37(4), 421–443. <https://doi.org/10.1016/j.emj.2019.01.008>
- Statista. (2021a). *Number of social network users worldwide from 2017 to 2025*. September 06 <https://www.statista.com/statistics/278414/number-of-worldwide-social-network-users/>.
- Statista. (2021b). *LinkedIn - Statistics & facts*. September 07 <https://www.statista.com/topics/951/linkedin/>.
- Stavros, C., Meng, M. D., Westberg, K., & Farrelly, F. (2014). Understanding fan motivation for interacting on social media. *Sport Management Review*, 17(4), 455–469. <https://doi.org/10.1016/j.smr.2013.11.004>
- Tess, P. A. (2013). The role of social media in higher education classes (real and virtual) – a literature review. *Computers in Human Behavior*, 29(5), A60–A68. <https://doi.org/10.1016/j.chb.2012.12.032>
- Tu, Y. F., & Hwang, G. J. (2020). Trends and research issues of mobile learning studies in hospitality, leisure, sport and tourism education: A review of academic publications from 2002 to 2017. *Interactive Learning Environments*, 28(4), 385–403. <https://doi.org/10.1080/10494820.2018.1528285>
- Vandeyar, T. (2020). The academic turn: Social media in higher education. *Education and Information Technologies*, 25, 5617–5635. <https://doi.org/10.1007/s10639-020-10240-1>
- World Medical Association. (2013). World medical association Declaration of Helsinki: Ethical principles for medical research involving human subjects. *JAMA*, 310(20), 2191–2194. <https://doi:10.1001/jama.2013.281053>.
- Yan, G., Watanabe, N. M., Shapiro, S. L., Naraine, M. L., & Hull, K. (2019). Unfolding the Twitter scene of the 2017 UEFA champions league final: Social media networks and power dynamics. *European Sport Management Quarterly*, 19(4), 419–436. <https://doi.org/10.1080/16184742.2018.1517272>