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ANTONIO: "I REALLY WANT THEM TO BE ENGAGED AND LEARN": THE USE OF SOCIAL MEDIA IN HIGHER EDUCATION

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ABSTRACT

Digital technology advances, including social media, are changing the ways in which people communicate, collaborate and learn. Scholars have suggested that social media could improve teaching and learning in higher education, while also cautioning about its use. This chapter explores a specific example of social media use with first year undergraduate degree students. The aim was to confront and challenge students' core beliefs about coaching youth sport. We illustrate and conclude that the incorporation of social media into educational processes must be based on sound pedagogical principles, and that the construction of a student-centred environment is pivotal to success.

PRACTITIONER NARRATIVE (Antonio Calderón)

I am a senior lecturer in physical education and sport pedagogy at a university in Spain. I have taught for twelve years in higher education, most of the time teaching first year undergraduate students. To develop my practice I use Twitter as a form of professional learning (see Table 1 for more details). Twitter allows me to interact with teacher educators, teachers, and pre-service teachers to share and discuss practice. On Twitter, I tweet (see Table 1) about pedagogy and my uses of digital technologies. I also read and respond to tweets made by others I follow about these topics. For tweets specific to physical education, I follow the hashtag #physed and embed this hashtag into my own tweets (see Table 1). Due to the benefits I experienced from using Twitter for professional learning, I decided to begin using social media in undergraduate teacher education classes to develop my students' engagement and learning. The following section provides an overview of the ways in which I used social media with my undergraduate students in a first year module.

The Module

The module ‘Youth Sport’ aimed to confront and challenge students’ core beliefs and prior knowledge about coaching youth sport. The module was delivered through three hours of lectures and one practical lesson per week over a four-month period. Students were required to reflect upon, share and debate core topics in order to achieve the targeted learning outcomes:

(1) Reflect about the advantages and disadvantages of ‘sampling’ versus ‘specializing’ approaches to youth sport.

(2) Learn the basic theory and practice of a pedagogical model such as Teaching Games for Understanding (TGfU).

(3) Enhance students' digital competence and awareness of the benefits of social media and digital technologies for supporting learning.

I embedded various social media sites into the module to extend students' learning. These sites allowed me to share information with my students and initiate debates during and in-between lectures and practical sessions. Table 1 identifies the various sites that were used throughout my module and describes their functions. The discussion below then details how these social media sites were used to support students' learning.

Table 1. Applications used within the Youth sport module

Application	**Description**	**Functions**
Twitter	Twitter is a micro-blogging social media site that allows users to interact with each other via online messages	• **Tweet:** a tweet is a message of 140 characters that users can send to each other • **Retweet:** a retweet is a re-posting of someone else's Tweet. This isn't an official Twitter command or feature, but signifies that you are quoting another user's tweet. • **Hashtag:** a hashtag such as #physed can be embedded into a tweet to signify a specific topic. Users can follow the hashtag to read all tweets made about this topic and they can embed the hashtag into their tweets to contribute to a discussion about a particular topic • **Follow:** users can choose to

		follow other users. This means that all tweets made by those they follow will appear on their home page of the Twitter site.
Google Hangouts	Google Hangouts is a online video conferences application that allows users to video call one another	To debate at the end of every unit about the topic taught. To activate in the students the need to prepare an online and live debate.
YouTube	YouTube is a video-sharing website that allows users to upload, view, rate, and share videos. Most of the content on YouTube has been uploaded by individuals, but institutions offer some of their material in their channels	To upload the students' reflections after the coaching practice.To access videos that related to youth athletes.
Piktochart	Piktochart is a web-based infographic application which allows users without intensive experience as graphic designers to easily create professional-grade infographics using themed templates	To motivate the students to participate in the Google Hangouts and to engage them in the subject.
Google+	Google+ is an interest-based social network to connect with friends and family, and explore all of your interests. Share photos, send messages, and stay in touch with people.	To share info related to the online debates and the highlights of every one.To keep students informed about the schedule of the Google Hangouts.

Twitter

For this module, I created the hashtag #fid1415. Every week I tweeted using #fid1415 to share information with my students in the following ways:

(1) ***Tweet of the week:*** a relevant and thought-provoking tweet about content related to the module. For example, in week one of the module, I retweeted, the following: “behind the young person in front of you is a child who loves playing your sport. Regardless of their ability you must never extinguish this” (by Dr Martin Toms). The tweet of the week was posted on Mondays at the beginning of a lecture. Before the tweet of the week was shared, I would post another tweet to encourage students to discuss the tweet of the week. For example, “Hi guys, look at this great tweet of the week [link inserted to tweet]. How can we deal with this? Do you agree? (#fid1415)”.

2) ***Article of the week:*** a relevant journal article or blog post was tweeted. For example, in the second week an article was shared that focussed on the debate between sampling or specializing in youth sport: “early specialisation is the best way to have high sporting success [link inserted to article] what do you think? (#fid1415)”.

(3) ***Twitter chat:*** is a live discussion during class time where students were asked to post tweets using #fid1415 at a specific time point. I displayed this live Twitter feed through the projector. For example, during a lecture students were asked to watch a video documentary. After the documentary, I posed questions to the class and asked them to tweet about their reflections on this video.

(4) ***Daily tweets:*** tweets were posted daily about youth sport trends and issues. For example, in the fourth week pictures were tweeted: “look at these practice pics! [pictures showing long queues of young athletes waiting to execute an isolated skill]- would you change something? (#fid1415)”.

In addition to the varying tweets I sent to initiate and prompt my students to discuss their learning during the module, I also asked my students to post tweets about their wider learning. The students could tweet as individuals from their personal accounts or they could create a team Twitter account to which they could post.

Google Hangouts

While Twitter was used on a daily and weekly basis, Google Hangouts were used to support students' learning on a monthly basis. Every four weeks students voluntarily participated in a Google Hangouts that I moderated to debate and reflect about core content being taught. For every Google Hangouts, students were asked to read relevant materials prior to the debates and I guided them though the debate by posing questions. The debates were announced on social media (Twitter and Google+) with specific infographics that I created using pikochart to promote student participation.

YouTube

The Spanish Olympic Committee YouTube channel was used to access videos that related to youth athletes. These videos were shared on Twitter in an effort to extend students' learning and I encouraged the students to use Twitter to discuss the content of the videos. For example, I shared the following tweet: "do you know the world youth triple jump Spanish champion? Are you brave enough to live like her? (#fid1415)". Each team was also asked to record a guided team video reflection of their personal coaching practice and upload it (public or private) to YouTube.

#fid1415

Throughout the module students were encouraged to achieve their best and all teams were considered for “The #fid1415 awards”. The winning teams were awarded certificates, gained recognition through the university’s social media channels (Twitter and Google+), and could earn bonus points for their grades. These awards were team-based and focused on the course’s learning outcomes:

(1) The best practice lesson (to assess students’ pedagogical content knowledge).

(2) The best “YouTube” video team reflection about practice (digital competence and creativity).

(3) The best social media team (active and quality engagements and comments on Twitter; quality resources shared).

In summary, this narrative has shown how I used various social media sites in my teaching practice in higher education. It is important to note, however, that I was not completely satisfied with the level of engagement of all my students; indeed, some seemed very reluctant to engage fully even though they enjoyed the approach. It seems that the most engaged students were the most technically competent students. The following sections of the chapter show three different perspectives on this narrative: (1) a social media perspective, (2) a teacher educator perspective, and (3) a pedagogical models perspective.

A SOCIAL MEDIA PERSPECTIVE (Isabel López-Chicheri)

The use of social media sites becomes more commonplace every day, and social media is not only changing the way people communicate and collaborate but also the way people learn (Evans, 2014). Consequently, the literature in the field is increasingly focused on analysis of the potential virtues of social media for academic purposes (Graham, 2014).

There are many social media sites that have been tested as learning 'enhancers' including YouTube, MySpace, Facebook or Google apps (see Tess, 2013, for a review). Although there is limited evidence, Twitter seems to be the most suitable platform for this purpose as it enables public dialogue and idea sharing (Forgie, Duff and Ross, 2013). Despite controversy regarding the value of the educational role of social media, recent empirical studies suggest that digital technologies could improve teaching and learning experiences (Balakrishnan, 2014). Moreover, the sense of community built among students (and lecturers) through social media improves peer-to-peer communication, increases solidarity in class teams, and leads to a better learning and teaching environment (Balakrishnan, 2014; Hamid, Waicott, Kurnia and Chang, 2015).

Nevertheless, students' perceptions about the integration and usefulness of social media in an academic context vary widely. On the one hand, many acknowledge the ability to access academic information quickly, the convenience of direct communication, the improvement of critical thinking skills and a perception that their academic achievement has been enhanced

(Gikas and Grant, 2013; Hamid et al., 2015). Conversely, some perceive social media as distracting, time-consuming, and made for leisure and socializing activities rather than academic purposes (Gikas and Grant, 2013; Mao, 2014). These last perceptions could be significant for students in their first year at university who may encounter their first academic experience using social media as a learning tool. Therefore, before using social media for learning, practitioners need to be aware of previous social network usage by students, and provide them with time and support to become familiar with social media as a learning environment (Graham, 2014; Rambe, 2012).

Research has explored the influence of using social media sites on a variety of academic-related variables; i.e. collaborative learning, critical thinking, peer-to-peer and teacher-student communication, perceived efficacy, motivation, writing and language fluency, and student grades (Arquero and Romero-Frías, 2013; Hamid et al., 2015; Tess, 2013; Tower, Latime and Hewitt, 2014). It is argued, however, that the most comprehensive variable is student engagement, because it encompasses behavioral, emotional and cognitive aspects (Kahu, 2013). Thus, engagement is not a simple construct, but is multidimensional, incorporating the time and effort students devote to activities and impacts on positive academic outcomes, the duration and intensity of thinking, and behavior and feelings of self during the learning process (Chapman, 2003; Kuh, 2009).

Although engagement parameters are not clear in the literature, there is agreement that engagement is related to motivation, enhanced achievement

and a sense of accomplishment (Steinman, Beauchamp, Kuntz and Parsons, 2013). Engaged students are more active in their learning process, take responsibility for their learning, and use a variety of cognitive and meta-cognitive strategies to support their learning (ibid). Furthermore, engagement is related to trust and a sense of belonging, and these socio-emotional factors affect students' participation and are essential for collaborative learning (Lu and Churchil, 2014). This is particularly noteworthy in case of shy or introverted students, for whom face-to-face interactions could be anxiogenic. Social media, on the other hand, enables them to interact and contribute ideas in a safe context (Forgie et al., 2013; Hamid et al., 2015).

Teacher involvement also impacts students' perceptions about the usefulness of social media for their learning (Irwin, Ball, Desbrow and Leveritt, 2012). Teachers' awareness, attitudes and perceived ability regarding technologies strongly influence the utilization of social media in class (Ajjan and Hartshorne, 2008). In this case, Antonio's involvement, attitudes and social media proficiency are clear, and yet some students did not engage as much as expected. Other variables relate to engagement and achievement. For example, it has been shown that practitioners who just post teacher-generated content, instead of involving students in critical activities, tend to achieve only superficial engagement (Rambe, 2012). It might, therefore, be concluded that while Antonio's activities have meaningful connections with the curriculum, most of the interactions were superficial. While he designed tasks to prompt dialogic interactions and active reflection, the sheer volume of tasks

was excessive. This is especially true when taking into account the other mandatory tasks students were required to complete.

Junco, Elavsky and Heiberger (2013) focused on fostering student engagement and academic achievement using social media and they propose different types of educationally relevant social media activities. In contrast to Antonio's strategies, most of the posts in this study were related to campus events, class reminders and other practical information. This could be one effective way to integrate selected social media sites into the academic context, gradually changing students' perceptions of the different uses of social media.

Importantly, Antonio's social media tasks were evaluated and graded as an extra reward that could increase students' final marks. Although Antonio's rewards seemed to be a clear motivator for some to become engaged participants, it may not have been enough for "lurkers"; i.e. those members of an online community who observe, but do not actively participate (Dennen, 2008). Antonio could consider incorporating the reward of students' efforts into the final grades, rather than an added extra, to deliver more positive outcomes (Lu and Churchill, 2014), even for lurkers.

A TEACHER EDUCATOR'S PERSPECTIVE (Javier Fernandez-Rio)

Teacher educators are influenced not only by their pedagogical and content knowledge, but also by their fears and weaknesses. Technology can be challenging and the fear it might provoke may influence pedagogical

practices. Antonio's initiative to incorporate Twitter and other social media sites into higher education leads me to consider three main ideas relevant in teacher education contexts: communities of practice, student-centred learning, and teacher and students as co-learners.

Communities of practice are groups of individuals who share common interests and have a desire to gain further knowledge in that specific area (Wenger, 2006). Social media sites can help to create open source communities with an established path through which newcomers can participate and quickly develop into trusted members of the community "through a process of legitimate peripheral participation" (Brown and Adler, 2008, p. 19). This means that any member participates from the first time that s/he logs in, increasing relevance in the group through personal inputs.

Social media tools can be positioned to help students feel that they belong to a community, allowing them the opportunity to express themselves, use their knowledge, even author some content, and widely share it with others. This could be a powerful tool for teacher education, since student interactions with faculty and peers are critical to learning (Rabe-Hemp, Woollen, and Humiston, 2009). For example, teacher educators could use social media to create communities of learners where the face-to-face teaching-learning processes could be augmented. Such communities could offer opportunities for students to integrate content, practices or technologies and develop new competences and skills. However, while the role of educators is fundamental for supporting students (Okada, Coelho, Ferreira and Pinto, 2015) some teachers are afraid

of becoming ‘24-hour teachers’ who are almost always “on call” (Groseck and Holotescu, 2008). Antonio appears able to manage this potential problem, and his perspective serves as a good example of how social media can help to create communities of practice in university settings.

Student-centred learning is viewed as increasingly important in contemporary teacher education settings due to its perceived ability to facilitate “democratic participation, equality, and empowerment to learners” (Le Ha, 2014, p. 1). In seeking to centre learning around the learner, i.e. asking them to be active participants in their own learning (growth), teachers should actively seek opportunities for students to analyse, participate, integrate and develop knowledge. To achieve this, students should play a dynamic role in their own learning process. Goodyear and Dudley (2015, p. 275) suggested that “student-centred approaches entail developing students’ ability to become their own teachers”. That said, active teachers (activators); i.e. those who take responsibility and play a dynamic role in helping students learn how to learn (Hattie, 2012), are also needed.

Social media sites have been found to enhance deep learning by taking the focus away from the teacher and shifting it to the student (Gonzalez, Ingram, LaForge and Leigh, 2004). Such sites can, therefore, serve as potential platforms for active teachers and self-teaching students. In Antonio’s narrative, the ambition is to establish a student-centred learning context through a combination of all the different mechanisms described: Google Hangouts, live class Twitter chat, and tweet of the week. If teacher educators

are committed to social media as an educational tool, they have to show their students the educational advantages of its use. “Learning to be a full participant in the field” (Brown and Adler, 2008, p. 19) should be our goal as teacher educators for our students.

The idea of *teacher educators and students as co-learners* is grounded in the work of scholars such as Freire (1986) and Smith (1996) which argued that teachers and students should cooperate to grow personally and professionally. In physical education contexts, Casey (2012, p. 83) proposed actors in the teaching-learning process should become co-participants in this ‘wonderful voyage’ (p.83). Casey wrote of his own experience as a teacher engaged in such a joint venture: “I [teacher] made changes on a lesson-by lesson basis and changed myself as much as I changed them [students]” (ibid, p. 83).

This perspective on learning connects with ideas previously explored: student-centred learning contexts, active teachers and lifelong learning. It is, however, a step further in as much as it is about truly empowering students and acknowledging their capability to engage in “teaching teachers”. It is likely that every teacher would say that s/he has learned from their students and that this learning has prompted changes in his/her practice. The circle is completed when the teacher educator returns this newly acquired knowledge to other students and they also learn from it.

It has been argued that the dynamic pace of change in education demands that educators and students “collaborate together in order to co-learn and develop skills for co-creating knowledge anywhere and anytime” (Okada et

al., 2015, p. 83).Social media sites can reinforce the notion of viewing teachers and students as co-learners, since their use encourages different forms of interaction. Antonio noted that he “learns a lot from his personal learning environment”, which seems to indicate that he considers himself and his students to be co-learners. This is important, because teacher educators can only grow as professionals through a process of continuous learning with and from others, including his/her students. The challenge here is to show teacher education students that they can learn from a wider social network community but that this requires a well-planned and coherent instructional design.

In summary, the use of social media in education can support and enhance three recognized mechanisms to enhance student learning in contemporary teacher education: communities of practice, student-centred learning, and teacher and students as co-learners. At the same time, it is important to recognize that there may be something of a generation gap in the ways in which students and teachers understand and accept the role of social media. The challenges faced by tutors must be acknowledged – especially in addressing negative perceptions about teachers’ personal-professional balance and workload, students’ active role, and traditional views on the teacher-student hierarchy.

A PEDAGOGICAL MODEL PERSPECTIVE (Oleg A. Sinelnikov)

This perspective is based on the understanding of a *pedagogical model* offered by Haerens, Kirk, Cardon, and De Bourdeaudhuij (2011) and Kirk

(2013). Specifically, a pedagogical model "identifies distinctive learning outcomes and shows how these might be best achieved through their tight alignment with teaching strategies and curriculum or subject matter" (Kirk, 2013, p. 979). To achieve this, a pedagogical model uses a set of non-negotiable features within a certain design specification to allow the interplay of learning, teaching, subject matter and context in the development of a program (Rovegno, 2006). This definition builds on the work of Jewett, Bain, and Ennis (1995) who provided definitions for a *curriculum model* and Metzler (2011) who proposed the term *instructional model*. Haerens et al. (2011), while supportive of this work, argued for the use of pedagogical models and positioned it as a neutral term that does not privilege the subject matter (i.e. *curriculum)*, or the teacher (i.e. *instructional*).

Pedagogical models have become important in the practice of physical education (Casey, 2014; Kirk, 2013). Conceived initially as an alternative to ineffective teacher-directed traditional practices, they were developed to provide better sporting experiences for children in their physical education experiences (Jewett et al., 1995; Siedentop, 2002). Many scholars have recognized the benefits of implementing pedagogical models in teaching and have advocated for the use of different models in achieving the breadth and depth of learning in multiplicity of contexts (Lund and Tannehill, 2010; Metzler, 2011; Siedentop and Tannehill, 2010).

A number of different pedagogical models have been identified; with the main ones being 'Sport Education', 'Teaching Games for Understanding' (and their

hybrids), ‘Cooperative Learning’, ‘Teaching Personal and Social Responsibility’, ‘Personalised System of Instruction’, ‘Peer Teaching Model’, ‘Inquiry Teaching’, ‘Health Based Physical Education’, and ‘Physical Literacy’. A description and summary of selected models can be found in Metzler’s work (2011) while ‘Health Based Physical Education’ and ‘Physical Literacy’ pedagogical models are described in the respective works of Haerens, et al., (2011) and Whitehead (2011).

The Sport Education (SE) model (Siedentop, Hastie, and van der Mars, 2011) is one of the more widely researched and well-developed pedagogical models (Kirk, 2013; Hastie, Martínez de Ojeda, and Calderón, 2011). Nevertheless, research on pedagogical models has predominantly been based in schools and has rarely been conducted in higher education settings (see Zach and Cohen’s (2012) report on ‘Cooperative Learning’ and Meeteer, Housner, Bulger, Hawkins, and Wiegan (2010) on SE for fuller discussions on the use of pedagogical models in higher education).

The use of technology has been documented to aid learners in the process of (a) achieving at least some of SE’s learning outcomes and (b) contributing to model’s ‘non-negotiable’ features. To date, a number of empirical studies have provided examples of how and when technology and social media can be adopted in SE (Hastie et al., 2012; Hastie and Sinelnikov, 2007; Sinelnikov, 2012). Specifically, Hastie, Casey, and Tarter (2010) provided an example of using technology within a pedagogical model by incorporating wikis within school physical education in a games making/SE unit. In this

study, twenty-eight pupils from two physical education classes in the UK were involved in a games-making unit that prominently featured wikis as the basis for game development. Pupils were divided into teams and were given a task to design an invasion game “from scratch” (Hastie et al., 2010, p. 81). The findings revealed that the expansion of learning outside of classroom space and time, coupled with the extended community of practice, resulted in a higher quality learning experiences in physical education for the participants.

In another study, college students developed and published webpages representing their volleyball season and showcasing their learning outcomes (Hastie and Sinelnikov, 2007). Each group created a team website comprising pages published by individual team members. The content of each webpage varied according to the individual’s role of the team. For instance, a student developed and uploaded team training plans, volleyball techniques and tactics to help other team members acquire competency in the game of volleyball. The webpages also served as means for authentic assessment from the instructor’s standpoint (Hastie and Sinelnikov, 2007).

The use of technology in the aforementioned studies allowed for the meaningful connection of, and interaction between, learning outcomes, teaching strategy and content. In contrast, the teaching strategies and learning tasks in Antonio’s class were more direct and teacher-centered. Lund, Metzler and Gurvitch (2008) and Meeter et al. (2011) provided precedents of programs in higher education that used SE as a structural discourse for physical education teacher preparation. Importantly, and as

cautioned by Kirk (2013), while the non-negotiable features of SE should be retained where possible, they must also allow practitioners to be creative (Lund et al., 2008, p. 581).

Disconcertingly, it has been reported that one of the key structures of SE; i.e. learners working in small and persisting groups, has also contributed to some of the unintended and unwelcome outcomes (Hastie et al., 2010; Sinelnikov, 2007). As in many group work situations, the expectation, that all participants do their part equally, was not realized and, as a result, some of the team members became frustrated. The unintended outcomes of unequal or unfair work distribution must also be considered carefully in the use of social media since, in Antonio's narrative, it is apparent that students worked in groups for a considerable amount of time.

In conclusion, scholars have argued that the use of technology in higher education should be driven by three interrelated concepts:

1. The apparently changing nature of students who come to university highly connected, collective, and creative;
2. The changing relationship that current university students have with knowledge consumption, knowledge construction, and formal education; and
3. The de-emphasis of institutionally provided learning and emergence of "user-driven" education (Selwyn, 2010).

All three concepts can work very well with models-based practice, especially if they are linked to the broad conceptualization of pedagogy

that recognizes the interdependent elements of curriculum, learning, and teaching (Armour, 2011).

A PEDAGOGICALPERSPECTIVE (Antonio Calderón, Javier Fernández-Río and Oleg A. Sinelnikov)

The purpose of this section is to consider the case narrative about the use of social media to support student learning in teacher education, and also the three analytical perspectives. The aim is to identify wider lessons learnt for the development of effective pedagogies of technology. Firstly, it is important to highlight the importance of taking an inclusive approach to technology in order to enhance learning and teaching (Casey, 2014). Inclusion was certainly the aspiration but, as is noted in the narrative, there are challenges. There is much literature on the potential benefits of interaction using social media and digital technologies (e.g. Twitter); i.e. engaging with content, peer learning, promoting critical thinking, self-directed learning, self-monitoring of learning progress, interacting with lectures, and enjoying the interactive learning environment (Hamid, et al., 2015; Megele, 2015; Sobaih, Moustafa, Ghandforoush, and Khan, 2016). Yet, although the case narrative reports Antonio's desire to be student-centred in order to enhance student learning, as Brady et al. (2010) recommended, his approach could be challenged as being too teacher-centred.

The social media intervention included activities that may have restricted dialogic interaction such that it was more of a one-directional process of information-sharing. For example in the "tweet of the week", the "article of the

week” and the “daily tweets”, the practitioner mainly shared content (through tweets) and only a minority of students appeared to be engaged meaningfully. It is also worth noting that these were the most technically competent students. On reflection, it seems clear that the other students are more accurately described as lurkers. It may be the case that in their personal use of social media, this is the perfectly valid way in which they engage (Dennen, 2008; Sponcil and Gitimu, 2013) so this approach simply transferred to the learning context. Alternatively, it could be argued that Antonio’s tweets were too closed and teacher-centred, so they simply didn’t prompt students to get involved. Ramble (2010) reported the same “superficial engagement” when a teacher posted teacher-generated content instead of involving students in critical activities. The intention was good; i.e the structure of the social media-based intervention attempted to recognize that many of the first year undergraduates had little previous experience of using social media for learning, however the reality did not match up to Antonio’s aspirations.

That said, and as Rafaeli, Ravid, and Soroka (2004) point out, lurking may have allowed novice users to learn the conventions of an online community before they actively participated, therebye improving their socialization when they eventually de-lurk. Mao (2014) noted that in order to be successful in this type of intervention, it is essential to understand students’ prior knowledge of social media, their attitudes and beliefs about these digital technologies and related obstacles. For example, in a study of older high school students it was found that they depend on social media in their daily lives for leisure and social connections (Mao, 2014). If the students in Antonio’s class were similar,

it may explain why some were initially reluctant to use social media for a different purpose.

Looking across the literature and the perspectives presented in this chapter, we might conclude that what really matters is not the technology or the tool, but the user's prior experience and uses of technology. Given the relatively low engagement levels, it would appear that some students in Antonio's class faced challenges in separating personal and academic purposes, and struggled to find their digital identity as a learner. Moreover, attempting to force greater collaboration between first year undergraduates through Twitter – or any other intervention - does not seem to be the most effective solution (Forgie et al., 2013). Instead, and with hindsight, it may be more important to set up a learning environment than attracts students to technology gradually, and in ways that acknowledge their prior beliefs and experiences as users.

Another key issue that arose in both the case narrative and the perspectives was the *process* of developing users' social learning identities and the collaborations between them. To achieve the most effective results in social media-based interventions, it seems clear that practitioners should have a theoretically-driven pedagogical basis for their approach and also engage actively with students on the selected platform (Junco et al., 2011). In line with Antonio's beliefs as a pedagogue, the pedagogy underpinning his intervention was built and based on a theoretical framework described by Megele (2015) as "dialectical constructivism and social learning". This framework rejects the idea that knowledge is something that can be delivered from a

“knowledgeable source” to someone lacking that “knowledge”. Instead, it is an approach that focuses on the processes of student participation and interaction to provide and sustain the context for quality learning experiences.

Despite the best of intentions, however, the case narrative suggests that Antonio’s theory was not fully realized in practice. As Casey (2014) noted, the use of technology needs a clear purpose and an effective combination of technology and pedagogy, and it is this that seems to be the differentiating factor in attracting and keeping students engaged (Megele, 2015). We should not lose sight of the fact that, for the most part, technology is a tool to address educational concerns (Fletcher, 1996). It could be argued that Antonio’s use of technology was somewhat “mechanical”, leading the user to focus on the short-term, day-to-day use of social media with insufficient time for reflection (Hall, 2010).

Perhaps, on reflection, the focus was too much on the excitement of using of social media and too little on the learning outcomes and students’ individual needs. In order to establish a more authentic student-centred approach, it might have been more effective to have involved the students in solving social or digital technology-based tasks or challenges. This ambition might have been achieved by the use of a pedagogical model such as SE. For example, Antonio could have asked students to design an infographic on the advantages and disadvantages of sampling versus specializing in youth sport. Then, after students had searched and curated the content, they could have shared the outcomes through Twitter in an attempt to connect with other

undergraduate students or practitioners in order to open a dialogue and share opinions. Finally, by awarding ‘fair play points’ to those who became engaged rather than simply to those who made the best contribution, Antonio might have ‘encouraged’ greater engagement.

This pedagogical case also raises another issue to be considered critically: that of the non-active participation of some students. This may be linked to the organization of teams that remained the same throughout the programme. As noted in the third perspective, the unintended problems of unequal or unfair work distribution (what Tousignant and Siedentop, 1983, described as competent bystanding) to complete most tasks need to be carefully considered. In this case, every team had a student who took on the responsibility for leading social-media. Team members chose this student and frequently based this decision on the student’s previous experience with social media and digital technologies. This could be another reason why not all the students had active engagement and involvement in social media because, in effect, they had off-loaded the responsibility onto a more experienced teammate. Indeed, in most cases, this same student was the one who also participated in the Google Hangouts and in the rest of online activities.

In summary, reflection on the case narrative and the three perspectives suggests that an effective pedagogy of technology needs to be grounded in authentic student-centred learning contexts. It should also promote activities that encourage genuine dialogic interaction between all the actors involved

(teachers and students). If most of the content is teacher-generated in the first instance, this might help students to bridge the gap between their previous use of social media for mainly leisure purposes and the new educational ambitions, but this teacher-led approach should not dominate. Alternative student-centred approaches (such as models-based practices) could sit alongside such technology use. In this way these different innovations are positioned to support each other in order to support the students to learn.

PRACTITIONER REFLECTION (Antonio Calderón)

I joined Twitter in February 2013 and I started including it in my teaching in October of the same year. Most of my initial tweeting activity included retweets (to repost or forward another user's message - tweet - on social media sites), marking favorites (letting the author know you like it) and tweeting about places I went to and activities that I thought might be of interest to others (i.e. conferences). Aligned with this personal use of Twitter, my teaching use (i.e. using the hashtag #fid1314) was mainly based around tweeting resources about the subject content in the form of journal articles and audiovisuals which, on reflection, was not very engaging for some first year undergraduates. One year later, my Twitter connections (followers and people I followed) started to grow. During that time I tweeted more frequently to let my personal learning network know about my teaching practice. My teaching use (using the hashtag #fid1415) was still based on tweeting resources about the subject content, trying to engage students in their learning and increase their motivation to learn about the use of social media

sites. This might explain why students' engagement did increase over time but was still not as fast as I might have wished.

At the point where I was considering the intervention for the next group of students (#fid1516) I decided to change the message of the hashtag for another one that was more creative and engaging. I chose, after a deep searching process, the hashtag #FIDmola (FID is the acronym of the course name and "mola" is the Spanish word that means "cool"). This change of hashtag is not arbitrary but instead represents a major shift. First of all, I do feel a level of security and comfort in using Twitter for professional learning and global connections. My personal learning network is now more or less defined (although remains open) and I feel I learn from it every day. I also started blogging[1] this year. This change of conception has consequences in my teaching use of social media. Having concluded that the first two years of #fid1314 and #fid1415 needed to be improved, I decided to change the focus of the module. My students now have an option, for example, of avoiding formal subject exams if they choose an alternative path. This alternative path consists of a series of mini-challenges to be solved by the students through the use of social technology-based activities. For example, in the second unit, two key concepts in coaching youth sport (traditional/technique or innovative/tactical coaching) are introduced. To engage in this mini-challenge, my students have to: (1) search information from the internet (I recommend different blogs, journal articles, through attractive challenge-info presentation); (2) curate and sort the information; (3) design an infographic (using specific

[1]This is the link to the course blog: http://fidmola.blogspot.com.es/

software) which shows the advantages and disadvantages of both approaches; (4) share through social media sites (Twitter) the outcome, mentioning and trying to interact with at least one of the authors they have chosen to follow to create the infographic; and, lastly, (5) reflect about the whole process on their blogs and tweet about this too - always using the relevant hashtag.

In summary, and as noted earlier, the process of constructing this case and using the expertise from different perspectives to help my critical reflection has led me to some clear conclusions. It is imperative, for example, that in a process of learning and adaptation to the use of social media sites for educational purposes (by students and practitioners) the quality of personal uses of social media is an important component. A pedagogy of technology is, therefore, also a personalized pedagogy. Undoubtedly, as I learn more and the social media landscape continues its dynamic evolution, this principle will become even more important.

LESSONS FROM THE CASE: HOW CAN THE USE OF DIGITAL TECHNOLOGIES ACCELERATE STUDENT ENGAGEMENT IN HIGHER EDUCATION

After the experience with #fid1415, and taking into account the more recent experience of #FIDmola, the following lessons can be learnt:

1. Start reflecting about a theoretically-driven pedagogical basis for incorporating social media in your teaching and set a general educational goal and not a goal of just using social media and technology.

2. Plan the instructional setting and structure of the student-centred intervention using educationally relevant criteria (aligned with standards, technology affordances, personal students' beliefs, needs, previous social media usage and learning outcomes).

3. Provide the students with enough time and support to become familiar with the social media environment for learning. Sharing teacher-generated content in the first instance might help students to bridge the gap between their previous use of social media for mainly leisure purposes and the new educational ambitions (this teacher-led approach should not, however, dominate).

4. In order to establish an authentic student-centred approach, involve the students in solving social or digital technology-based tasks or challenges. A pedagogy of technology needs to be grounded in authentic student-centred learning contexts and promote activities that encourage dialogic interaction between all the actors involved (teachers and students).

5. Use different web or mobile applications to encourage students to create their own subject content as a part of every technology-based task or challenge. The process of learning should develop in the students the competences of searching, curating, creating, sharing and reflecting in every challenge, in order to enhance their learning autonomy and engagement.

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