Guest editorial

Reviewing the performance and impact of social media tools in higher education
The adoption of social media tools within higher education has become steadily prevalent being applied towards the delivery of a variety of academic disciplines (Wang and Meiselwitz, 2015). Prior research has also indicated that social media use, dependent on its implementation, can support and facilitate various pedagogical approaches towards course provision (Cooke, 2015). Learning in higher education has become ubiquitous with cell phones, personal data assistants (PDAs) and smart phones used to deliver educational content (Pimmer *et al.*, 2016). However, despite the apparent increase of its use, research has indicated that academic opinion is slightly divided on this matter. For example, it has been argued that within higher education, social media tools can aid students in collaboration and sharing information and knowledge (Sobaih *et al.*, 2016). In contrast, there appears to be an inability for students to acknowledge social media as a formal educational tool (Greenhow and Lewin, 2016). Furthermore, it has also been stated that the use of social media for adoption in higher education for teaching and learning purposes is not as widespread in comparison to its personal or individual use (Manca and Ranieri, 2016). Reviews of the academic literature on the use of social media in higher education suggest that whilst the infrastructure to support its utilisation is prevalent in most universities, educators have been somewhat lethargic in embracing its adoption from a pedagogical perspective (Tess, 2013).

The aim of this special issue is to provide an overview of the current state of the art of social media use in higher education. Furthermore, this special issue undertakes an empirical retrospection that aids to exemplify and illustrate the existing adoption of social media use in higher education settings. The empirical findings reported in this special issue will be of use to educational practitioners to reflect on the case studies provided, the social media tools adopted as well as the pedagogical implications towards applying these tools in the classroom. At the time of writing this special issue, research into the area of social media use in higher education appears to be quite prevalent. Further empirical research could however be undertaken into the potential compatibility and effectiveness of blending social media use into the classroom. In addition, it would be beneficial for more research to be performed that investigates social media use in course curriculum to illustrate whether these tools can aid in supporting constructive alignment by way of accomplishing a course's intended learning outcomes. Empirical research into the use of social media tools in higher education will however continue to progress due to the evolving nature of these types of technologies.

The first paper in this special issue "Evaluating students' social media use for extra-curricular education" by Scholtz, Calitz and Tlebere, adopt the Uses and gratifications theory to investigate factors affecting social media use in addition to usage and acceptance of social media by students for extra-curricular content. Applying a predominately quantitative approach, the findings of the study were to a degree relatively negative in certain respects indicating less student engagement than initially expected. One main finding of the study was that forcing students to use social media for extra-curricular education could have a negative impact on its adoption.

The paper presented by Jimoyiannis and Roussinos, "Students' collaborative patterns in a wiki project: towards a theoretical and analysis framework" undertakes a case study approach exploring students' patterns of collaborative content creation using wikis. The wikis were employed in a higher education course entitled "Introduction to

Information and Communication Technologies". The wiki use by the students was assessed to ascertain whether they promoted self-directed and collaborative learning. Utilising a mixed methods approach, the findings of the study were deemed quite effective in supporting students' authoring, critical thinking, peer interaction, reflective and collaborative skills.

An exploratory study by Herro, Lin and Fowler entitled "Meet the (media) producers: artists, composers, and gamemakers" reviews the perceived influence of early gaming habits towards media production in creative media students. The qualitative study identified that game play has a creative impact on students' interest-based or personalised learning towards creating media independent of subject area. This research study reinforces the application of game play towards facilitating students' interest-driven approaches to learning.

In the paper "Adopting a virtual learning environment towards enhancing students' self-efficacy" McKenna, Baxter and Hainey report on the findings of a semi-experimental study within a higher educational institution involving students using a web-based personal tutoring system to enhance their self-efficacy. One of the main findings from this paper was that students more productively engaged with the platform when its adoption was extended throughout the duration of their studies. The findings reported in the study illustrate that the web-based personal tutoring system had a positive effect in enhancing students' self-efficacy towards portfolio use.

In a mixed methods study entitled "Using mobile learning and social media to enhance learner feedback: some empirical evidence" reported by Bikanga, Stansfield and Baxter the research investigates the views of both educators and students on feedback and feed-forward. In the context of mobile learning, the study did find that students were quite receptive towards receiving learning materials in addition to feedback to their mobile devices.

Hull and Dodd undertook an empirical study called "Faculty use of Twitter in higher education teaching" focussing on Twitter use in higher education for the purposes of engaging, educating and informing students about their studies. The results of the study are compared against Chikering and Gamson's seven principles for good practice in undergraduate education. The findings indicate that in the context of teaching and learning, when appropriately used in higher education, Twitter can pedagogically have a positive impact on student learning.

The case study "Large class teaching with Backstage" performed by Bry and Pohl incorporates the use of a virtual learning platform called Backstage to aid in the delivery of teaching large classes. Undertaking an experimental approach, the research evaluates the use of Backstage in two higher education courses – one that principally facilitates student participation and another class that is delivered more traditionally. The results indicate that when introduced into a curriculum that supports interactivity via lecture-relevant communication a platform such as Backstage can flourish.

Jimoyiannis and Tsiotakis present an integrated framework to aid in the investigation of students' engagement patterns and learning presence in educational blogs. Entitled "Beyond students' perceptions: investigating learning presence in a community of educational blogging" the study adopted the use of content analysis of students' posts using the framework of Community of Inquiry (CoI). The principal finding of the study indicates that educational blogs that are properly designed and integrated into a course curriculum can assist students cognitively via their communication, collaboration and critical thinking skills via a CoI approach.

In the final paper of the special issue, "E-portfolios and personal development: a higher educational perspective", McKenna, Baxter and Hainey investigate staff and student attitudes towards the use of e-portfolios for supporting the concept of personal development

planning (PDP). The research study identified several themes pertinent to the successful implementation of e-portfolios in higher education in addition to negative factors that may affect their ability to facilitate and support PDP in a higher educational context.

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