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**Article:**

Border, S, Hennessy, CM and Pickering, JD [orcid.org/0000-0002-0494-6712](https://orcid.org/0000-0002-0494-6712) (Cover date: September / October 2019) *The Rapidly Changing Landscape of Student Social Media Use in Anatomy Education*. *Anatomical Sciences Education*, 12 (5). pp. 577-579. ISSN 1935-9772

<https://doi.org/10.1002/ase.1875>

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Article type : Letter to the Editor

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## **The Rapidly Changing Landscape of Student Social Media Use in Anatomy Education**

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Running title: Social media use in anatomy education

This article has been accepted for publication and undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the Version of Record. Please cite this article as doi: 10.1002/ase.1875

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To the Editor, *Anatomical Sciences Education*:

Over the last few years *Anatomical Sciences Education* has published a number of articles documenting the use of social media platforms in anatomy education (Jaffar, 2014; Barry et al., 2016; Hennessy et al., 2016; Pickering and Bickerdike, 2017). As a collective group of authors responsible for contributing to some of this literature, we have recently noticed a significant change in the way our students are engaging with these platforms. For example, the Twitter hashtag associated with the Neuroanatomy and Head and Neck module (#NLM2soton) at the University of Southampton, as discussed by Hennessy et al. (2016), was previously a hive of activity filled with question and answer threads, peer-to-peer and peer-to-tutor discussions, amusing memes and interesting links. Moreover, upon reflection to the early iterations of integrating social media into an active medical curriculum, the interaction between students and tutors was extensive, with engagement occurring through the evenings and weekends. Fast forward to the Fall term of 2018/2019 and while tutors still continued to promote the hashtag with similar levels of enthusiasm, the number of students choosing to view and contribute to the Twitter feed significantly reduced in number and today the Southampton hashtag is barely used.

Intriguingly, a similar pattern of behavior was observed across other institutions and social media platforms. At Brighton and Sussex Medical School, where similar module specific hashtags were used (#m103anatomy and #m204anatomy) and weekly Twitter polls were released for students to test their learning, a drop-off in engagement was also noticed. For example, during the 2016/2017 academic year feedback from students enrolled on the course

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was extremely positive (Hennessy, 2017), but with subsequent cohorts during the following year, the contributions from students was noticeably less than previously experienced despite regular promotion during formal teaching sessions. In addition, this pattern of activity was compounded by students at the University of Leeds where a Facebook Page was used to provide an informal channel of communication for students and tutors to exchange information and answer queries relating to course content (Pickering and Bickerdike, 2017). Despite this tool being shown to have a significant impact on student's performance in summative assessments, from one year to the next the level of interaction from the student group declined to practically nothing. This was despite the same level of promotion from the module team. Something had certainly changed.

The literature on social media use in anatomy education suggests that it provides a supportive environment for students to ask questions and share concerns. All of the articles cited above boast a myriad of benefits which enhance the student experience, including boosting morale and raising spirits, providing informal feedback and allowing teaching staff to be more accessible out of hours. Therefore, if teaching staff are willing to offer time using these platforms why would students choose not to engage with them? The study by Hennessey et al. (2016) even reported that the majority of students would like to see Twitter use adopted in other modules.

It would certainly appear from global statistics that the current generation of students can be fickle when it comes to social media. They often get frustrated by regular platform redesigns or become concerned over modified privacy policies (Sweney, 2018). It has also been suggested that fake news, misinformation, and 'click bait' posts have been distracting users from engaging with the same level of enthusiasm and authority (Allcott et al., 2019). All the leading social media networks have witnessed a drop in users in the last year, with teenage users deserting it the most (Sweney, 2018). It is hard to believe that the original adopters of Facebook are now in

their 30's and 40's. Furthermore, since the inception of social media there has been a gradual cultural shift in its content, which focuses more on family narratives, along with political and social observations and commentary. This shifting emphasis has been suggested to be a contributing factor in why the current generation are moving over to Instagram, where posts are more in line with their personal lifestyle habits and behaviors. This trend is substantiated by the large number of education feeds that are visible, with students hosting the most active account that exhibit images of their study notes, and approaches and struggles to learn effectively at university. In this context, it could be postulated that students would rather support each other in this specific online environment and not engage in a format that is increasingly distant and not reflective of their own needs or learning environment.

There are a number of further possible explanations for its decline as a means of educational support. Currently, students appear to be getting rather overwhelmed by all the layers of social media use and online support, which is one of the major contributing factors to social media fatigue (SMF) (Bright et al., 2015). One notable antecedent of SMF is the phenomenon known as 'fear of missing out'. The compulsive social media use associated with this has been linked to an increase in both anxiety and depression (Dhir et al., 2018). Originally, this phenomenon was only applied to social contexts, but it is possible that it may also be applicable in educational settings too. Furthermore, the limited capacity model of motivated mediated message processing (LC4MP) suggests that it is difficult for students to identify and ensure that the most important components of each social media communication are processed and remembered (Lang, 2000). The way in which messages are presented and attended to on social media are an important variable for motivational activation. The application of this model suggests that a unique set of parameters govern the understanding of real time interactions with online content or communication, and this warrants further exploration in anatomy education.

The majority of social media resources typically require registration with additional and often multiple login details to remember together with an additional privacy burden. Feedback at Southampton informs us that some students may have reached a point of saturation with new accounts and passwords. While most virtual learning environments have the capability to embed widgets which allow social media pages/feeds to be accessed freely, they sometimes end up being buried within multiple tabs and pull-down menus. As a result, students have stopped accessing them. These new trends in the use of social media within anatomy education may reflect the novelty of these tools, with students now reverting to what they truly find most useful as academic support - the critical few they deem to be most essential. Furthermore, while Twitter and Facebook are now more commonly home to professional accounts, and used increasingly by politicians and social commentators to drive opinion forming debate, within the academic community it can also be a place of friendship, comradery and the sharing of content aimed at support all anatomy students. Given our observations on the changing relationship between students and social media, the community of practice across academics does not seem to be developing with our student populations. Many students who engaged with either the Southampton hashtag or the Facebook Page at Leeds, reported a reluctance to fully engage and post questions that could be viewed by their peers and tutors for fear of appearing unknowledgeable and embarrassing themselves. It would appear that engaging with Twitter can be an intimidating experience, and many would either rather just observe or opt out entirely.

One important consideration is the impact of recent and regular medical curriculum revalidations. There has recently been a drive across institutions within the United Kingdom to reduce the assessment burden on students by the General Medical Council. Consequently, the medical schools at The Universities of Southampton and Leeds have changed their assessment portfolio from in-course modular assessments to high stakes end of year integrated

examinations. This has inadvertently had an impact on the student experience during anatomy modules. It is well known that assessment drives learning (Wormald et al., 2009), and therefore by reducing the 'high-stakes' nature of anatomy assessments within modules, students are potentially less anxious.

In previous years it seemed that the Twitter hashtag or Facebook page was the perfect outlet for offloading, sharing feelings and obtaining support from both peers and the faculty. It might well be that students no longer require such forums to strengthen their resilience at this particular time. Instead they simply roll from one system-based course to the next with opportunities for more relaxed formative assessments in-between.

Another contributing factor might be the fact that with each academic year, a majority of medical students are from the "Z Generation" (born between 1996-2016), who are reportedly more conservative with their social media use than previous generations (Iqbal, 2018). Gen Z-ers are thought to be more aware of how they portray themselves online, partly because they have learned from previous generations that social media can quite easily be an outlet for being publicly shamed. There have been several examples of medical students displaying unprofessional or questionable behavior on social media, with consequences ranging from receiving warnings to being removed from medical programs (Langenfeld et al., 2014; Barlow et al., 2015; Kitsis et al., 2016; Koo et al., 2017). Such examples are often used by medical school program directors during induction week as a way of warning students about the consequences of unprofessional social media use (Jain, 2009). It is very possible that this message has filtered down to students who are at the applicant stage and so even before students begin medical school they have learned to avoid any gratuitous exposure and use of social media.

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It would appear that although novel ways of supporting students online may continue to evolve, nothing can replace the enthusiasm and dedication of faculty members who continue to engage with the traditional channels of support such as face to face meetings, telephone conversations and personal email exchanges. These may sound a little 'old hat' to the new age generation of medical students and anatomists, but education is a personal journey and maybe fee-paying students desire more in the way of personal interaction within their programs to feel satisfied with their educational experience. As far as the future of social media use in anatomy education is concerned, the message is not entirely clear yet, but those paranoid amongst us might easily begin to wonder if it is possible that we were either not invited in the first place or have simply outstayed our welcome.

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