

SCIENCE COMMUNICATION IN 140 CHARACTERS: USE OF TWITTER BY STEM STUDENTS

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Background

Effective communication is ranked among the top skills employers seek in STEM graduates (1, 2). I teach two communication subjects to Masters of Science research students from every discipline – focused on communicating with other scientists in first semester and with lay audiences in second semester. I include social media in the first semester curriculum, with a particular focus on Twitter, for two reasons. Firstly, contrary to many students' beliefs that social media is only for personal use, many scientists regard Twitter as an important platform for discussing science, forging collaborations and creating support networks (3). Secondly, given the short length of tweets (140 characters), it has been suggested using Twitter is an effective way to hone students' communication skills.

Aims

I aimed to explore student perceptions regarding the potential role that social media in general, and specifically Twitter could play in the professional life of a scientist. I surveyed student perceptions prior to, and after, a one-hour session describing and promoting the value of Twitter to scientists. I was particularly interested in whether this one session would be sufficient to convince students Twitter was a useful tool for them as scientists.

Design and methods

This study included two cohorts: 102 students (2015) and 129 students (2016). I initially asked the students (pre-survey) whether they currently used Twitter and asked for their responses to the following statements: 'Social media plays an important role in the professional life of a scientist', 'Social media is a valid way to communicate about science with lay audiences', 'Social media is a valid way to communicate about science with other scientists' and 'Having a professional presence on social media can help my career'. A prominent Australian scientist with a large Twitter presence gave a one-hour class focused on the value of Twitter to scientists. Two weeks after the class (post-survey), I asked students to respond to the same statements. In the final two weeks of semester I encouraged students to live-tweet each other's final research presentations.

Results

All results were similar across both years. Students generally used social media personally, but not professionally at the time of the pre-surveys and less than a third were Twitter users. Most students perceived social media to be a valid way of communicating about science with lay audiences; only two-thirds believed this to be true for communicating with other scientists.

In the post-survey, the proportion of students who believed that social media was a valid way to communicate about science with scientific audiences had increased. Students were also more inclined to agree with the statement that social media plays an important role in the professional life of a scientist. Almost all students set up Twitter accounts and live-tweeted the final presentations. Three-quarters of students agreed that a professional social media presence would help their career and many continued to use Twitter after the subject had ended.

Conclusions

A one-hour session outlining the value of Twitter to scientists contributed to more students recognising a role for Twitter (and social media) in the professional life of a scientist. Students actively engaged with Twitter during, and after the subject and the live-tweeting sessions highlighted their

ability to identify and succinctly communicate the main message of each other's research. Including Twitter in the curriculum was valuable both from the point of view of improving students' communication skills as well as broadening their understanding of the role of social media in science.

References

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