

Are you a SCEPTIC?: SoCial mEdia Precision & uTility In Conferences

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Abstract:

We analysed Twitter feeds at an emergency medicine scientific conference to determine (i) accuracy of disseminated educational messages and (ii) utility in providing rapid feedback to speakers. Most speakers were happy for key messages to be tweeted, and the majority of tweets (34/37) represented these accurately. It is important speakers and conference organisers consider Twitter use, and its potential benefits and disadvantages.

Introduction

Social media embraces a range of technologies that allow web-based and mobile applications to connect and engage individuals and organisations, and create user-generated content. In particular Twitter has become an established micro-blogging tool for pre, intra- and post conference communication.[1,2]

This presents opportunities for education and interaction, though may result in misrepresentation through human error or technical restrictions including Twitter's limited character count. It also provides speakers with rapid feedback which can be used to modify future presentations. We aimed to establish the accuracy of key educational messages disseminated by conference delegates via Twitter in relation to speakers' intent, and opinions from speakers on whether they would use Twitter for feedback in future.

Methods

During the College of Emergency Medicine Annual Scientific Conference in September 2013 speakers were invited to participate after their presentation session. Having read an information leaflet and provided consent, they completed a questionnaire [Appendices 1-3] exploring their attitudes and interactions with social media. Speakers stated their intended key messages for dissemination, which were compared with the contents of the relevant Twitter feed. Speakers were also asked about using Twitter to gain feedback in the future. The primary outcome measure was correlation between (i) stated key messages and (ii) content of delegates' tweets. Permission was gained from the conference organising committee. This study did not require Research Ethics Committee or NHS approval.

Results

14/14 (100%) speakers who were approached participated covering 16 talks (two speakers presented two talks with Twitter feedback). 10/14 (71.4%) had Twitter accounts but 6 (60%) were for personal use only. Table 1 contains responses on the use of Twitter in conferences.

Table 1: Initial attitudes of speakers towards Twitter at conferences

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
Twitter can be a useful tool for medical education	0 (0.0%)	0 (0.0%)	7 (50.0%)	3 (21.4%)	4 (28.6%)
I am happy for conference participants to share through Twitter	0 (0.0%)	0 (0.0%)	0 (0.0%)	6 (42.9%)	8 (57.1%)
I am happy for screenshots/pictures of my slides to be shared live via Twitter.	1 (7.1%)	2 (14.3%)	1 (7.1%)	2 (14.3%)	8 (57.1%)

13/14 (92.8%) speakers had at least one tweet about their presentations. 11/14 (78.6%) had a second tweet, 8/14 (57.1%) had three and 5/14 (35.7%) had four. Table 2 contains speakers' comments on tweet content. 43.2% (16/37) tweets represented, 43.2% (16/37) partly represented and 8.1% (3/37) misrepresented what the speaker was trying to say (in 2 cases the speaker was uncertain)

Table 2: Correlation of speaker messages and posted tweets

	Number of Speakers	Represents what I was trying to say	Partly represents what I was trying to say	Misrepresents what I was trying to say	Don't Know
Tweet One	13	5 (38.5%)	5 (38.5%)	2 (15.4%)	1 (7.7%)
Tweet Two	11	4 (36.4%)	6 (54.5%)	1 (9.1%)	0 (0.0%)
Tweet Three	8	3 (37.5%)	4 (50.0%)	0 (0.0%)	1 (12.5%)
Tweet Four	5	4 (80.0%)	1 (20.0%)	0 (0.0%)	0 (0.0%)

5/14 (38.4%) were more likely to use Twitter for future presentation feedback, 7/13 (53.8%) about the same and 1/14 (7.7%) less likely. The full results from the questionnaire can be found in appendix 4.

Having reviewed the tweets 3 of the 14 participants said they would change their approach to future presentations. Free texts comments in relation to these changes included:

- Trying to make the conclusions clearer
- Putting up statements in a Twitter friendly way

Free text responses either related to lack of previous knowledge of twitter or raised concerns. In one case:

“I think it is a useful tool principally for dissemination. Feedback is unregulated and although it can be useful, it is sometimes difficult to gauge the seniority/experience of the person commenting. I therefore welcome all opinions and comments but am unclear about how to take some of them.”

Another speaker raised a specific concern about a section being taken out of context. In this case one slide made a strong statement which in the general narrative of the talk made a valid point, but in isolation could have potentially harmed the speaker's reputation.

Discussion

As determined by speakers, key educational messages were generally accurately disseminated via Twitter at this medical conference. However three tweets did not reflect what the speaker was trying to say. Revising tweets retrospectively is almost impossible as even if the original tweet is deleted it may have already been shared with thousands of other twitter users. This highlights issues relating to content and context of tweets, giving rise to debate on what level of correlation is acceptable, and whether individuals or organisations would wish to embargo Twitter feeds. The practical nature of an embargo would be difficult to enforce. However, although the concept of observing an 'honour-code' in not tweeting has yet to be tested, some speakers do already ask for delegates not to take pictures of their slides.

It could be assumed any speaker would be keen to know how their talk is received and understood. Traditional post-course feedback questionnaires are one such method but twitter may realise a more real-time and transparent measure. Dissonance between the intended message and its translation via a tweet likely exists due a number of factors related either to the presenter, the tweeter, or the technology. One potential cause is the quality of the presentation and the clarity with which messages are presented. It was not possible in this study to ascertain whether the whole audience was similarly mistaken or whether this was one individual's misinterpretation. Tweepers themselves may consciously or subconsciously phrase the message to achieve greater impact for their followers, an approach which could be viewed as sensationalism in some circumstances. These areas require further assessment in a future larger scale study, wherein comparison of tweets from the same talk may determine the extent of these effects. Finally there remains the

challenge of constructing a 140-character tweet which accurately communicates the content and context of the intended message.

Without further evidence it is difficult to ascertain whether speakers should actively change their talks or presenting styles as a result of the increasing use of Twitter. It is possible that doing so may improve presentation quality, particularly if speakers were informed of the capabilities of commonly used social media and the need for clarity of key messages, with consequent alignment between what is presented and what is tweeted. However if there is a risk of miscommunication or sensationalism this could conversely lead to presenters 'sterilising' down their content and reducing the number of engaging or humorous slides. It is clear however that given the prevalence of social media use, there is a need for speakers to be aware of the potential advantages and disadvantages beforehand. Guidance could also be given to delegates to generate an awareness of the impact of their tweets, and the importance of accuracy in improving the overall output from such events. Conference organisers may find it useful to become more involved in this process, perhaps selecting the "best" tweets for retweeting via their official handle or hashtag. Such measures need not involve being didactic about what can and can't be tweeted, but could demonstrate how tweets can be used and allow speakers to reflect on the content of their talks.

This study included only a small number of participants with a few tweets per speaker. There was also a potential bias in that a small number of tweets (7) came from the authors of this study. It is therefore not possible to draw definitive and generalisable conclusions. However we have demonstrated the importance and enthusiasm for future study in this area and have developed methodology to be able to do so.

Despite Twitter use increasing [3-5] little guidance exists for its specific use at conferences. If social media use effectively and accurately communicates with a wider audience then organisers, speakers, and delegates must respond by assisting such communication. Conversely, if it provides a well-intentioned platform for disseminating inaccurate information, steps must be taken to protect the integrity of scientific conferences. A larger study is now needed to determine which is the case, and the results used to inform any future guidance.

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References

1. <http://www.timeshighereducation.co.uk/422153.article>. Last accessed 5th September 2014
2. Chatterjee P, Biswas T. Blogs and Twitter in medical publications: too unreliable to quote, or a change waiting to happen? *S Afr Med J*. 2011 101(10):712-714.
3. Neill A, Cronin JJ, Brannigan D et al. The impact of social media on a major international emergency medicine conference. *Emerg Med J*. 2014 31(5):401–4.
4. <http://www.symplur.com/healthcare-hashtags/smaccgold/>. Last accessed 5th September 2014
5. Nomura JT, Genes N, Bollinger HR et al. Twitter use during emergency medicine conferences. *The American Journal of Emergency Medicine*. 2012 Jun;30(5):819–20.