



## Teaching an old pain medicine society new tweets: integrating social media into continuing medical education

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Today, social media has surpassed print newspapers as the primary source of news [1]. In medical education, social media has developed into a tool for disseminating new research findings and learning points from scientific conferences in real time to online audiences throughout the world [2–4]. Social media metrics are increasingly becoming used in academic appointment and promotion portfolios [5]. Twitter in particular has become the social media platform of choice for conference attendees across medical specialties [6–10], and studies show that the majority of tweets generated from conferences are educational [10,11].

The current opioid epidemic represents an opportunity for

pain medicine societies to take advantage of social media to promote the latest research and key educational messages from conferences to aid clinicians and patients. However, to date there are no published reports of social media implementation strategies from the field of chronic pain. We therefore provide our experience deliberately integrating Twitter use into the annual fall pain medicine conference hosted by the American Society of Regional Anesthesia and Pain Medicine (ASRA) and share strategies used to promote high-quality tweets and drive engagement. This project was granted exemption from review by the Institutional Review Board.

ASRA was originally founded in 1923 but dissolved by 1940 when members were encouraged to join the growing American Society of Anesthetists, which eventually became the American Society of Anesthesiologists [12]. The modern ASRA was founded again in 1975, and its current vision is to relieve the global burden of pain (<https://www.asra.com/about>). We conducted this comparison of Twitter use for the fall 2015 and 2016 annual pain medicine meetings of ASRA since the Society developed a social media strategy in between these two conferences. Free Twitter transcripts were obtained for #ASRAPain15 and #ASRAPain16; these hashtags were registered with Symplur (Pasadena, CA, USA), a healthcare social media analytics company, in advance of each meeting.

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## Social Media Strategy

Prior to the 2016 ASRA spring regional anesthesia annual meeting, a new social media education and engagement strategy was implemented and directed towards members and meeting attendees [11]. No specific strategy existed prior to this year, and implementation continued for the 2016 ASRA fall pain medicine meeting. In August 2016, ASRA posted an article on its website with specific tips on writing blogs, which would also apply to other social media posts (<https://www.asra.com/news/117/tips-for-writing-blog-entries>). All correspondence (e.g., emails, flyers) prior to the 2016 fall pain medicine meeting featured the hashtag #ASRAPain16. Although the 2015 fall pain medicine meeting had a hashtag #ASRAPain15, this was not heavily promoted. A ‘Social Media Team’ was identified in 2016 based on members and past meeting attendees who had been previously active on Twitter. These individuals were asked to promote the upcoming fall pain medicine meeting in advance as well as ‘live tweet’ [13] and actively participate in the #ASRAPain16 Twitter conversations during the conference.

## Metrics

Tweets for each of the conferences were collected as transcripts starting with registration opening on the first day of the meeting and ending on the last day of the meeting at the conclusion of the last session. Impressions (the number of tweets multiplied by the number of followers who can view the tweets) and number of Twitter participants (those who created at least one tweet) were collected from Symplur free analytics [11]. All tweets were manually counted and reviewed by two investigators independently. Among the complete list of tweets, replies (tweets in response to another Twitter user’s original tweet), and retweets were differentiated from original tweets. Tweets were assigned to one of four categories (scientific, logistical, social, or other) based on a classification system described previously [11]. Specific content of tweets was assessed for the inclusion of media (e.g., images, video), external links (‘for more information’), and mentions (including another Twitter user’s ‘handle’ or username in the tweet). Analyses were performed with NCSS-PASS statistical software (NCSS, LLC, Kaysville, UT). Comparisons of proportions were conducted using the Chi square test or Fisher’s Exact test if  $n < 5$  in any field. For all analyses,  $P < 0.05$  was considered statistically significant.

## #ASRAPain15 and versus #ASRAPain16

The number of tweets generated by the ASRA fall pain medicine meeting increased from 148 for #ASRAPain15 to 312 for #ASRAPain16. The number of impressions increased from

527,489 for #ASRAPain15 to 1,746,713 for #ASRAPain16, and the number of participants also increased from 128 for #ASRAPain15 to 196 for #ASRAPain16. Nearly all tweets were original and not replies or modified retweets: 136 (92%) for #ASRAPain15 and 284 (91%) for #ASRAPain16 ( $P = 0.758$ ). Most tweets were scientific in nature: 57% for #ASRAPain15 and 161 (52%) for #ASRAPain16 ( $P = 0.242$ ). Some form of media (e.g., image) was included in 92 (62%) of #ASRAPain15 tweets compared to 164 (53%) of #ASRAPain16 tweets ( $P = 0.053$ ). Links were included in 15 (10%) of #ASRAPain15 tweets compared to 71 (23%) of #ASRAPain16 tweets ( $P = 0.001$ ), and at least one other Twitter user was mentioned in 63 (42%) of #ASRAPain15 tweets compared to 168 (54%) of #ASRAPain16 tweets ( $P = 0.024$ ). The number of tweets with at least one retweet was 65 (44%) for #ASRAPain15 versus 175 (56%) for #ASRAPain16 ( $P = 0.015$ ).

This is the first description of a deliberate social media strategy to promote Twitter activity and engagement for an annual pain medicine conference. Despite being one of the oldest subspecialty societies in anesthesiology, ASRA has embraced technology and innovation and has made social media a point of emphasis in its communications. Following implementation of a focused strategy between the fall 2015 and 2016 annual pain medicine meetings of ASRA, the number of tweets, participants, and impressions generated as well as the content quality of tweets increased in the subsequent meeting.

Today, Twitter functions as a tool for the modern learner [2,14]. While the use of Twitter during scientific meetings is becoming commonplace [10,11], the selection of metrics in research studies analyzing Twitter data has not yet been standardized [2]. We propose four categories of Twitter metrics for the purposes of reporting Twitter use in medical education (Fig. 1). We further suggest the following best practices for live tweeting (Table 1) [15]. Our example of one professional pain medicine society’s integration of Twitter into its annual scientific conference demonstrates that a focused implementation strategy may

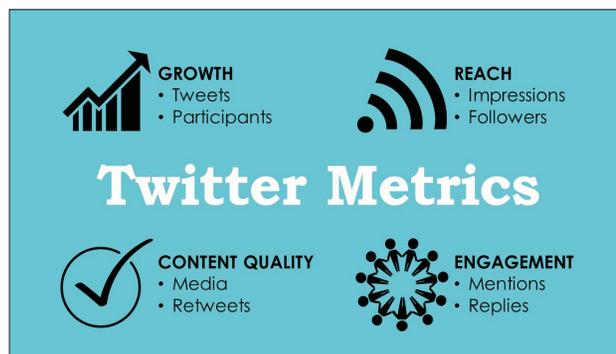


Fig. 1. Four categories of proposed metrics for the reporting of Twitter use in medical education.

**Table 1.** Suggested Best Practices for Live Tweeting during a Medical Conference

1. *Register the conference hashtag with Symplur before the event:* <https://www.simplur.com/healthcare-hashtags/>. A free account gives conference organizers and planning committee members access to basic analytics and transcript services for up to 30 days after the event.
2. *Advertise the conference hashtag on all promotional materials and include it in all tweets related to the conference.* The hashtag allows other Twitter users to easily find tweets related to the conference since a hashtag is a live link within the body of a tweet. After the event, all tweets that include the conference hashtag can be collected and saved in the form of a transcript using Symplur.
3. *Emphasize quality and not quantity of tweets.* It is too difficult (and unnecessary) to give a phrase-by-phrase reproduction of a speaker's entire lecture. Remember that the primary purposes of attending a conference are to learn and network, so spend more time on these activities and not tweeting. Consider summarizing two or three salient points from a presentation into one tweet or tweeting photos with a short commentary to provide context for the Twitter community.
4. *Give credit where credit is due.* Before tweeting, do a little homework. Use the search function on Twitter (spyglass icon) to check if a speaker has a Twitter account; if so, include the speaker's 'handle' (username) in your tweet. If the speaker references a key article, find the link and include it in your tweet. These elements make a tweet more informative to the reader and may increase the likelihood of its being retweeted or generating further conversation on Twitter.
5. *Keep tweets clean and professional.* Healthy debate is one of the best parts of scientific conferences, but avoid writing anything in a tweet that would not be said in public. Above all, remember to protect patient privacy and confidentiality.

be associated with improvements in the quantity and quality of live tweets and attendee engagement.

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No potential conflict of interest relevant to this article was reported.

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