Tweetorials for Medical Educators

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The Challenge

Social media has solidified its role as a key forum for medical education. Twitter is one of the most widely used online platforms and is increasingly recognized as a relevant venue for medical education and academic scholarship.[1,2] Yet, producing high-quality content in a single 280-character tweet remains a challenge.

What Is Known

The tweetorial (a portmanteau combining tweet and tutorial) has emerged as a method to overcome Twitter's character limit for individual tweets while taking advantage of the tools it provides (eg, addition of graphics, hyperlinks, and polls). Defined as a "collection of threaded tweets aimed at teaching users who engage with them,"[3] tweetorials are created and consumed by medical educators and learners. Unlike individual tweets, tweetorials are typically planned and drafted in advance and posted synchronously. These threads teach key concepts, tell stories via a narrative approach, supplement and critically appraise new research, and highlight educational best practices.[4] The most effective tweetorials share key elements, such as clearly defined educational goals, high-quality visual elements (if applicable), lower cognitive load, and linear progression of ideas (FIGURE). With the ability to reach audiences far larger than those in traditional formats, such as lectures, tweetorials provide educators with a unique opportunity to expand their academic profiles.[1]

How You Can Start TODAY

1. **Identify content areas of interest and then consume tweetorials deliberately.** Identifying your content interest(s) allows you to use subject-specific hashtags to discover relevant tweets and tweetorials (eg, #MedEd for content focused on medical education, #LiverTwitter for content focused on hepatology). Searching #Tweetorials paired with your area(s) of interest is a helpful way to get started: #MedEd #Tweetorials #LiverTwitter. MedTweetorials.com has curated lists to learn how various authors utilized key tweetorial elements, such as visuals, and how to create a linear progression of ideas. Be goal oriented when navigating Twitter to maximize the platform's algorithm as it responds to patterns of previous consumption.

2. **Collate and teach locally using tweetorials that you find educationally valuable.** Select and share published tweetorials to enrich various teaching venues, including attending rounds, clinic discussions, and case conferences. For example, selecting a narrative medicine thread may produce reflective conversations among learners in clinic, while a physiology tweetorial may be sent to residents for quick review of a specific concept discussed on rounds. In order to fully use these "in-the-moment" Twitter benefits for teaching, it is necessary to maintain a collection of easily accessed threads. Twitter's bookmark function is one way to do this.

What You Can Do LONG TERM

1. **Identify a focus and choose a tweetorial format to meet educational goals.** Composing educational tweetorials is a teaching activity and should follow the usual steps and learning principles. What are the topics you consistently enjoy discussing with trainees and colleagues? What content or perspectives are not commonly shared on Twitter? Determine what tweetorial format best suits your topic, skill set, and interests. A narrative thread may best convey a point about communication skills; a visually focused thread might optimally teach a physiology concept; a point-by-point didactic thread might best teach an educational concept such as assessment. Consider connecting with more experienced tweetorial authors for early feedback and guidance.

2. **Start with the end in mind.** Start with the "what" you want to teach by identifying learning points and objectives before writing your tweetorial. Focus on what you want your learners to take away from the tweetorial. What perspective do you hope to share? What points do you envision readers will share with their peers or in their own clinical environments?

3. **Incorporate best practices grounded in active learning and cognitive principles.** Overcome Twitter's ephemeral nature by opening with a hook that entices potential readers. Be mindful of cognitive load, not only for individual tweets, but also for the overall tweetorial. While the optimal tweetorial length is not known, audiences may be more likely to complete shorter threads (eg, < 12). Embrace Twitter's character limits; be crisp and concise. Twitter's visual and interactive platform includes several tools to aid learning: high impact multimedia (eg, images, GIFs, videos), polls (to harness the

Anatomy of a Tweetorial

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First Tweet: Use a hook to draw in your audience & establish premise of the thread.

Middle Tweets: The narrative core of your story. Engage readers using:

Polls

Visuals

Links

Closing Tweet:
1. Summarize key messages
2. Recommend next steps for interested learners

FIGURE

Anatomy of a Tweetorial

RIP OUT ACTION ITEMS

Recognize that tweetorials are powerful, easily accessible local and virtual instructional tools.

Address cognitive load by clearly defining focused teaching goals.

Utilize high-quality visual media that "lifts" content off the screen.

testing effect), and hyperlinks (providing access to primary literature).

4. **Choose visual media that "lifts" content off the screen.** While not all tweetorial formats require visual elements (eg, a purely narrative thread), leveraging multimodal content delivery can enhance audience engagement and knowledge transfer. Focus on the first tweet to draw attention to the tweetorial as a whole. In subsequent tweets, use visual media to convey complex concepts and offer summarization. Always credit visual sources if not self-produced and choose non-blurry, high-resolution images (ie, at least 640×480 pixels). Emojis help accentuate and organize content but use them judiciously as they can distract when used to excess.

5. **Write and publish your first tweetorial.** Start simple and choose a topic you know well. Allow your intellectual curiosity and personal knowledge gaps to guide the process. Avoid speaking with authority above your credentials and consider peer review to assess for accuracy, readability, and cognitive load. Web-based Twitter does not allow for saving drafts of threaded tweets, so composition should occur elsewhere. Note-taking and word processing apps can serve this function. Twitter's embedded threading function allows you to input the final tweetorial and post all the tweets simultaneously, which ensures a seamless experience for your audience. Didactic threads should close with a strong summary tweet to highlight salient learning points, while narrative threads may benefit from a denouement that ties themes together.

6. **Monitor and study the reach of your tweetorials.** The optimal metrics for tweetorial assessment have not been defined beyond impressions, which can be tracked as a rough measure of reach. To increase the connection with your intended audience, tag other content experts or authors of literature cited in the tweetorial. Experiment with different teaching strategies and monitor the effect of timing (ie, day of the week and time of day), number of tweets, inclusion of polls, graphics, etc.

7. **Amplify and coach others in their own development of tweetorials.** When curiosity strikes in the clinical environment, instead of asking learners to answer a Socratic question and report back, push them to create a short tweetorial. This may enhance learning, foster interaction with a broader community of learners, and promote input from experts. As your skills grow in tweetorial creation, coach others who endeavor to engage in this valuable teaching practice.

References and Resources for Further Reading

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