

# A Bird in the Hand: A Neurologist's Guide to Efficient Tweeting in the Age of Social Media

Divyani Garg,<sup>1</sup> Ayush Agarwal<sup>2</sup> and Venugopalan Y Vishnu<sup>2</sup>

1. Department of Neurology, Vardhman Mahavir Medical College and Safdarjung Hospital, New Delhi, India; 2. Department of Neurology, All India Institute of Medical Sciences, New Delhi, India

DOI: <https://doi.org/10.17925/USN.2022.18.2.76>

Social media platforms, such as Twitter, are increasingly used by clinicians, including neurologists. Twitter represents a convenient means to reach out to fellow clinicians, researchers and patients alike. To make maximum use of these platforms, they must be used pragmatically and within the ambit of ethical principles that guide all medical practice. As neurologists, familiarizing ourselves with the technical know-how and potential uses of Twitter empowers us best to use it as a valuable clinical and networking tool. Twitter offers diverse formats for a neurologist, thus enabling the creation and dissemination of specific types of information in the form of tweetorials, journal clubs, conference-based tweeting, tweetchats and the like. In this practical step-by-step guide, we demonstrate how to harness Twitter for myriad academic uses.

## Keywords

Neurology, social media, Twitter, tweetorial, tweetchat

**Disclosures:** Divyani Garg, Ayush Agarwal and Venugopalan Y Vishnu have no financial or non-financial relationships or activities to declare in relation to this article.

**Review process:** Double-blind peer review.

**Compliance with ethics:** This study involves a review of the literature and did not involve any studies with human or animal subjects performed by any of the authors.

**Data availability:** Data sharing is not applicable to this article as no datasets were generated or analysed during the writing of this article.

**Authorship:** The named authors meet the International Committee of Medical Journal Editors (ICMJE) criteria for authorship of this manuscript, take responsibility for the integrity of the work as a whole and have given final approval for the version to be published.

**Access:** This article is freely accessible at [touchNEUROLOGY.com](http://touchNEUROLOGY.com). © Touch Medical Media 2022

**Received:** 17 May 2022

**Accepted:** 4 August 2022

**Published online:** 10 October 2022

**Citation:** *touchREVIEWS in Neurology* 2022;18(2):76–80

**Corresponding author:** Venugopalan Y Vishnu, Department of Neurology, Room 704, Cardio Neurosciences Centre, All India Institute of Medical Sciences, Ansari Nagar, New Delhi 110 029, India. E: [vishnuvy16@yahoo.com](mailto:vishnuvy16@yahoo.com); [vishnuvy16@aiims.edu](mailto:vishnuvy16@aiims.edu)

**Support:** No funding was received in the publication of this article.

The surge in social media use seems to have become a sign of our times. Social media has ramified into not only our personal lives but, importantly, also our professional lives and will continue to do so in the future.<sup>1–4</sup> At the same time, more neurologists resorted to online learning modalities, including podcasts and social media platforms such as Twitter, during the COVID-19 pandemic, even prompting the recent publication of ‘how to’ articles on creating ‘tweetorials’.<sup>5</sup>

Twitter is a microblogging social media platform that permits users to post messages (‘tweets’) of up to 280 characters. Additionally, tweets may be enhanced by attaching images, videos or hyperlinks, and users may also share others’ tweets by ‘retweeting’.

Given the ubiquitous nature of social media, particularly Twitter, it is increasingly unlikely that neurologists will be able to avoid this trend for long.<sup>6</sup> However, clinicians carry great responsibility, including in the use of social media. In cardiovascular medicine, the promotion of articles via Twitter was shown to be associated with an increased number of citations,<sup>7</sup> and this may apply to neurology as well. Indeed, using social media to disseminate scientific information might be especially relevant for neurologists compared with other healthcare professionals. Neurology has witnessed broader advances over recent years compared with other medical specialties. Twitter may be especially useful to neurologists, as it provides brief interactions, which help to offer a quick overview on a topic to people with cognitive issues (e.g. brain fog, attention/concentration deficits). However, one potential disadvantage of Twitter is its character limitation, which reduces the amount of information that can be imparted.<sup>8</sup> This barrier may be overcome by a number of strategies, such as tweetorials.

The American Academy of Neurology recently authored a position statement about social media advocating for neurologists to act ethically when using online platforms. Neurologists should not see this as a deterrent from engaging in social media but as a reminder that neurologists represent their profession and institution in addition to their own views.<sup>9</sup>

Twitter is an easy-to-use, dynamic and versatile instrument that clinicians may harness in general to enhance academic outreach.<sup>6</sup> In this pragmatic review, we aim to provide a stepwise guide for neurologists on the efficient and effective use of Twitter for a range of academic activities.

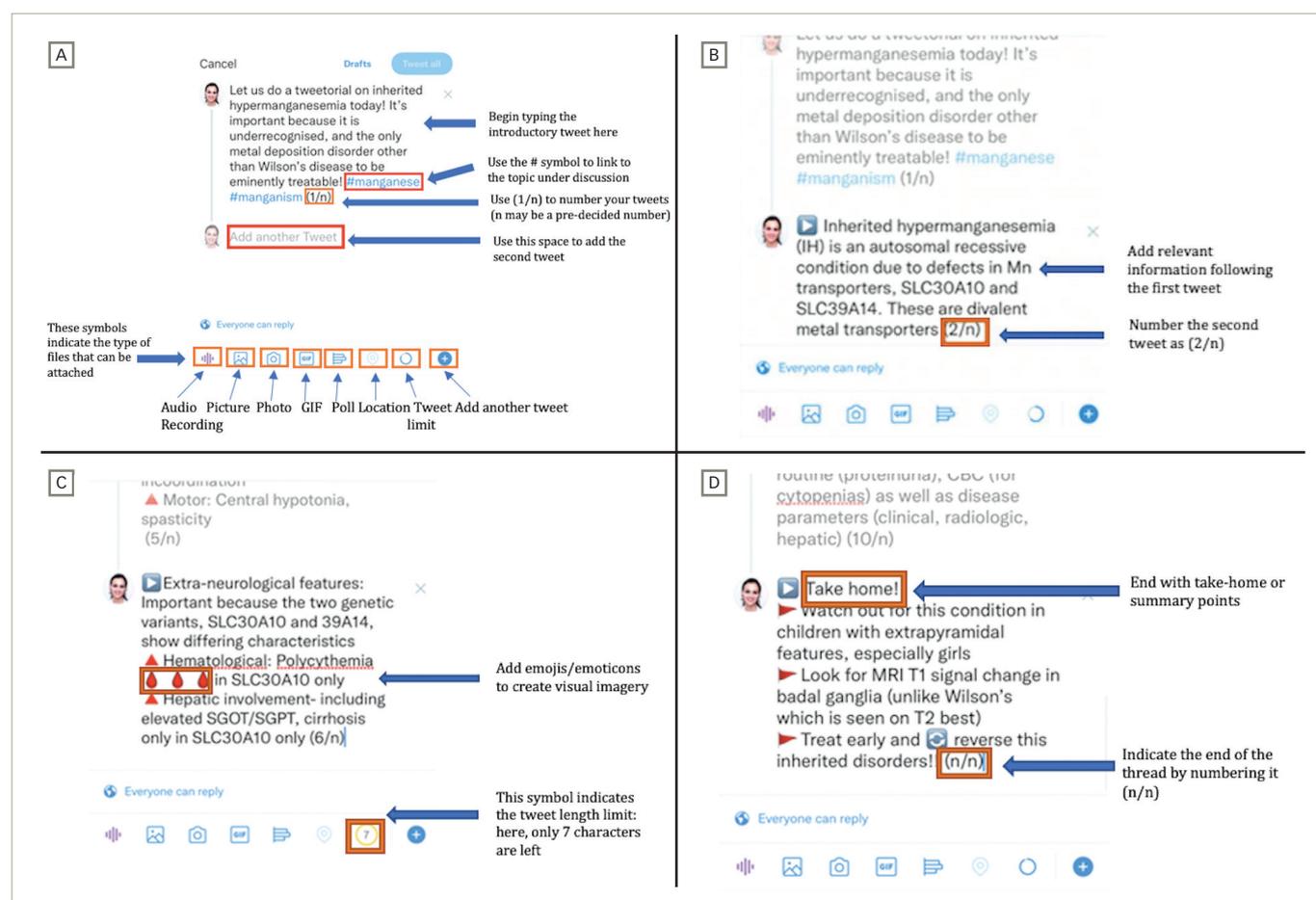
## Twitter: A multifaceted platform

Twitter may be used by neurologists in multiple ways,<sup>6,10</sup> and each method has specific advantages and disadvantages (*Table 1*). These methods may help neurologists to decipher the best way to present information on Twitter.

**Table 1: Uses of Twitter by clinicians**

Tweetorials	These are interlinked tweets that may be used to expand on a theme. Individual tweets may focus on a specific aspect of the topic. Eventually, all the tweets can be read in sequence to form a coherent thread
Conference tweeting	This entails tweeting events or important updates from a scientific conference in real time so that readers may be able to access the information live
Paper threads	Tweets may focus on individual scientific papers and may adopt the form of a tweetorial (see above) along with a link to the paper of interest
Polls	Twitter offers a poll option so that readers may cast their votes. This is a popular and quick way of conducting an online academic quiz or opinion
Twitter journal clubs	These follow the format of live traditional journal clubs. The audience is invited to participate and type in their queries and comments, which are answered live by the presenter, who is often an invited author
Tweetchats	These are virtual chats themed around a central topic. Individuals may virtually gather to present their views. The usual duration is 1 hour, and questions may stimulate a discussion

**Figure 1: How to create a tweetorial**



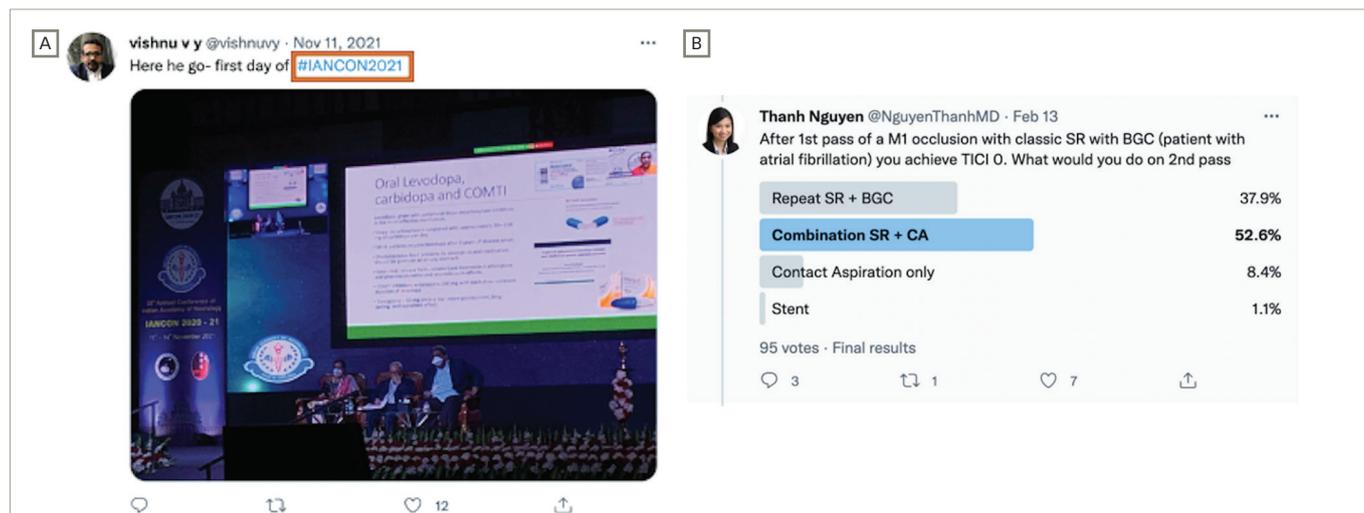
A: Step 1. Start the tweetorial; B: Step 2. Add another tweet; C: Step 3. Make it pictorial and add relevant links; D: Step 4. Wrap up the tweetorial with take-home messages.<sup>11</sup>

**Pointers to maximize reach**

When using any of the Twitter formats described in *Table 1*, certain strategies may be used to foster wider outreach.

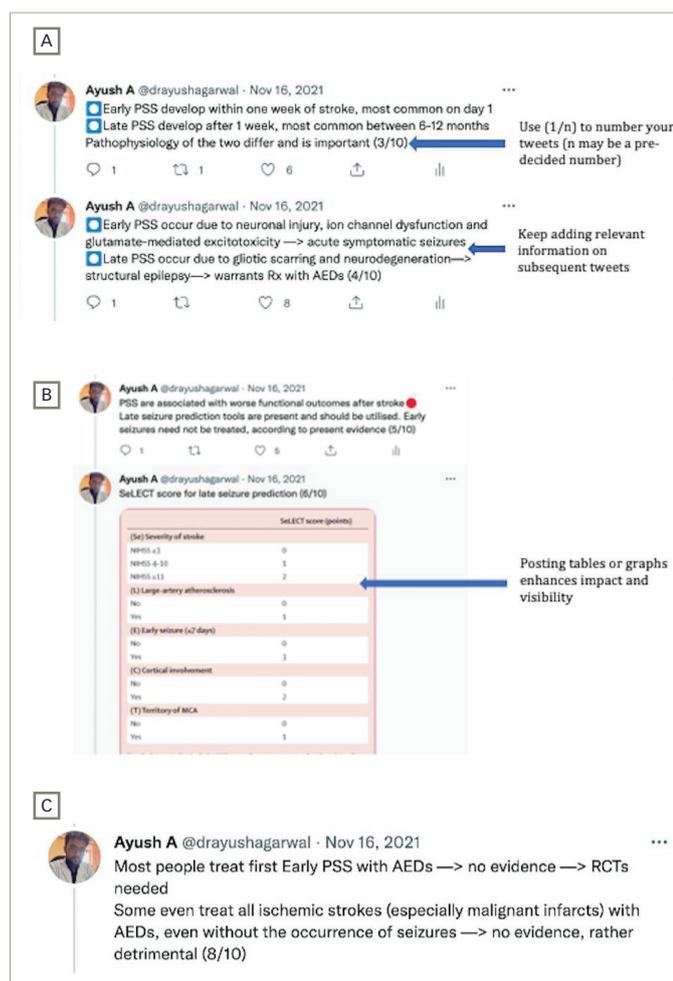
- The use of ‘hashtags’ (#): Hashtags are a means to link the ‘hashtagged’ tweet with all other tweets that used the same ‘#’. Clicking on the hashtag will enable readers to access tweets of a similar area of interest that have been similarly ‘hashtagged’.
- Tagging (@): Using the ‘@’ symbol on the tweet enables the Twitter user to tag other Twitter users, scientific journals, organizations, etc., by their Twitter usernames.
- Retweet: This enables another user’s tweet to be shared with your followers on Twitter so that they may be able to access this information. When followers, in turn, retweet the post, the reach of the tweet is increased. Retweeting can either be a simple repost of the tweet, or it can be a ‘quote retweet’. In a quote retweet, users have the option to preface the post being retweeted with their own tweet or statement. Quote retweets can be used to emphasize or expand on a salient point from the original post.
- Likes: Likes are represented by a ‘heart’ symbol, which may be accessed by the followers by clicking on the ‘Likes’ section of the user page.

Figure 2: Conference tweeting



A: Provide live updates; B: Ask a question using the Twitter poll option.<sup>12,13</sup>

Figure 3: Paper threads



A: Step 1. Introduce the paper; B: Step 2. Relate relevant findings; C: Step 3. Wrap up with key messages.<sup>14</sup>

- Pictures: People are more likely to look at a picture (collages are preferable) than a video (use videos if showing an interesting finding or technique).
- Regular posting: Posting regularly (two or three times per week) ensures visibility without stealing highlights from any tweet.

### An illustrated guide to using Twitter

In this section, we will demonstrate how each of the methods mentioned above may be used in practice.

#### Tweetorial

##### Step 1: Start the tweetorial

A tweetorial may be initiated by introducing the topic using a preamble (Figure 1A).<sup>11</sup>

##### Step 2. Add another tweet

Post further tweets in a logical sequence, each providing nuggets of information (Figure 1B).<sup>11</sup>

##### Step 3. Make it pictorial and add relevant links

The tweetorial may be made more appealing by using different symbols or emoticons and by adding relevant links to increase its informative value (Figure 1C).<sup>11</sup>

##### Step 4. Wrap up the tweetorial with take-home messages

A summary message or key points are often useful to end the thread (Figure 1D).<sup>11</sup>

A tweetorial is, therefore, a visually appealing method to provide information to readers on a specific topic.

#### Conference tweeting

Attending a conference is a great place to learn and network with people of similar fields or interests. Conference tweeting may take the form of live tweeting during a conference and sharing conference updates (Figure 2).<sup>12,13</sup>

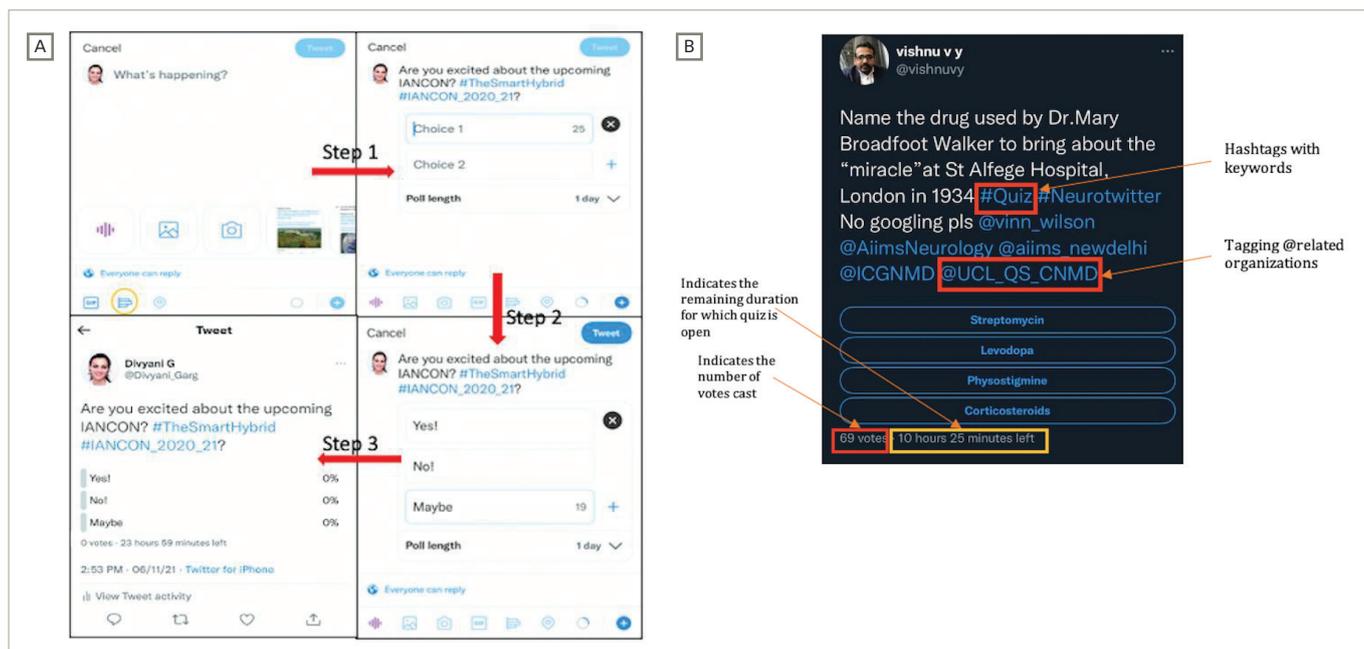
##### Step 1: Let people know that you are attending

Ideally, this should be done in advance with either a direct mention or an invitation to join a session. Using hashtags allows attendees and other interested parties to connect, as well as building momentum pre-conference.

##### Step 2: Tweet during the presentations

Keep your followers updated with useful information and snippets from the presentations. Remember to add pictures of interesting slides. The presenter can be tagged (using the @ symbol) in the tweet.

Figure 4: Twitter polls



A: How to conduct a poll on Twitter; B: Appearance of a poll conducted on Twitter.<sup>15,16</sup>

**Step 3: Tweet photos/videos**

Show people what is going on at the conference venue (Figure 2A).<sup>12</sup>

**Step 4: Ask relevant questions**

These can be direct questions seeking answers or to educate based on the knowledge acquired. The latter can be done as a poll to generate greater interest (Figure 2B).<sup>13</sup>

**Paper threads**

Twitter can be used to analyse and simplify the findings of a research paper (Figure 3).<sup>14</sup>

**Step 1: Introduce the paper**

Introduce the paper and provide a link to the article.

**Step 2: Delve into the details of the paper**

Give details about the definitions used and the pathophysiology described in the paper (Figure 3A).<sup>14</sup>

**Step 3: Share the results**

Analyse and share the major findings of the paper (Figure 3B).<sup>14</sup>

**Step 4: Relate the relevant findings and implications**

Conclude by providing the implications and the take-home messages (Figure 3C).<sup>14</sup>

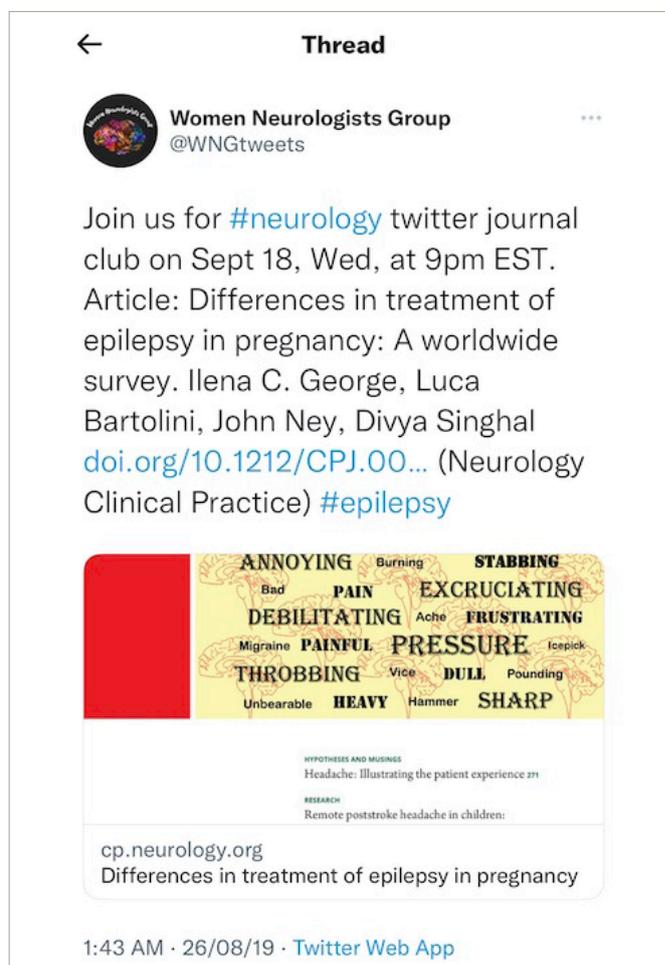
**Polls**

Polls are an easy and quick method for generating discussion or sharing information on a topic (Figure 4).<sup>15,16</sup>

**Step 1: Select the 'poll' option**

Open the 'Tweet compose box' and click on the add poll icon.

Figure 5: How to use Twitter for journal club: A neurology journal club conducted by @WNGtweets<sup>17</sup>



### Step 2: Design your quiz and enter the choices

Several choices may be entered. The poll length, that is, the time for which the poll remains open to readers, may be selected. The default option is of 24 hours.

### Step 3: Tweet the quiz

Followers will respond by selecting choices and retweeting the poll (Figure 4B).<sup>16</sup>

### Twitter journal club

Twitter can be used to conduct live journal clubs (Figure 5).<sup>17</sup> In that case, users select a paper and discuss the study background, methodology, results and discussion, including a critical appraisal.

### Tweetchat

Twitter chats can be conducted to help connect the person directly with their audience through live questions and answers.

### Step 1: Choose an appropriate time slot and hashtag

A convenient timeslot should be chosen based on the audience of interest.

### Step 2: Inform in advance and invite relevant guests

Giving advanced notice so people can plan accordingly increases the chances of better attendance.

### Step 3: Incorporate images/GIFs wherever possible

### Step 4: Answer promptly and stick to the allotted time

### Precautions

Neurologists should take certain precautions when using Twitter. It is important not to share personal patient information. It should also be remembered that these tweets are in the public domain and may be read by anyone; therefore, Twitter must be used responsibly. Moreover, healthcare workers will always represent the institution they belong to, even if popular disclaimers such as “tweets are my own” are made.

### Conclusions

It is increasingly clear that these social media platforms are here to stay, and we must learn to harness their potential in a meaningful way. Twitter has become a platform that can nurture professional growth through networking and academic showcasing, thus promoting global collaborations. It is thus important for neurologists to embrace the growing #NeuroTwitter community. □

- Lavorgna L, Brigo F, Abbadessa G, et al. The use of social media and digital devices among Italian neurologists. *Front Neurol.* 2020;11:583.
- Moccia M, Brigo F, Tedeschi G, et al. Neurology and the internet: A review. *Neurol Sci.* 2018;39:981–7.
- Forgie SE, Duff JP, Ross S. Twelve tips for using Twitter as a learning tool in medical education. *Med Teach.* 2013;35:8–14.
- Shariff AI, Fang X, Desai T. Using social media to create a professional network between physician-trainees and the American Society of Nephrology. *Adv Chronic Kidney Dis.* 2013;20:357–63.
- Albin C, Berkowitz AL. #NeuroTwitter 101: A tweetorial on creating tweetorials. *Pract Neurol.* 2021;21:539–40.
- Mishra B, Saini M, Doherty CM, et al. Use of Twitter in neurology: Boon or bane? *J Med Internet Res.* 2021;23:e25229.
- Ladeiras-Lopes R, Clarke S, Vidal-Perez R, et al. Twitter promotion predicts citation rates of cardiovascular articles: A preliminary analysis from the ESC Journals Randomized Study. *Eur Heart J.* 2020;41:3222–5.
- Moccia M, Carotenuto A, Massarelli M, et al. Can people with multiple sclerosis actually understand what they read in the Internet age? *J Clin Neurosci.* 2016;25:167–8.
- Busl KM, Rubin MA, Tolchin BD, et al. Use of social media in health care – Opportunities, challenges, and ethical considerations: A position statement of the American Academy of Neurology. *Neurology.* 2021;97:585–94.
- Abcejo AS, Adedugbe I, Rosenblatt K. Twitter Journal Clubs in perioperative neuroscience: Opportunities and challenges. *J Neurosurg Anesthesiol.* 2021;33:192–4.
- Garg D (@divyani\_garg). “Let us do a tweetorial on inherited hypermanganesemia today!” 16/11/21, 2.33 PM. Tweet.
- Vishnu, VY (@vishnuvy). “Here he go-first day of #IANCON2021” 11/11/2021, 9.02 AM. Tweet.
- Nguyen T (@NguyenThanhMD). “After 1st pass of a M1 occlusion with classic SR with BGC (patient with atrial fibrillation) you achieve TICO 0. What would you do on 2nd pass” 13/02/22, 6.14 PM. Tweet.
- Agarwal A (@drayushagarwal). “Early PSS develops within one week of stroke, most common on day 1” 16/11/2021, 10.11 PM. Tweet.
- Garg D (@divyani\_garg). “Are you excited about the upcoming IANCON? #TheSmartHybrid #IANCON\_2020\_2021” 6/11/2021, 2.53 PM. Tweet.
- Vishnu VY (@vishnuvy). “Name the drug used by Dr. Mary Broadfoot Walker to bring about a “miracle” at St. Alfege Hospital in London in 1934 #Quiz #Neurotwitter” 16/11/21, 9.23 AM. Tweet.
- George IC, Bartolini L, Ney J, Singhal D. Differences in treatment of epilepsy in pregnancy: A worldwide survey. *Neurol Clin Pract.* 2019;9:201–7.