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## Increasing opportunities for international surgeons

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### ABSTRACT

Social media has completely transformed communication among surgeons. Although we have learned a lot, we still have many challenges to resolve with these tools. Nevertheless, social media has opened many novel opportunities for the surgical community worldwide. Many of these opportunities would never be realized without social media tools, especially in low and middle-income countries. We will discuss the main tools and their applications for increasing opportunities for international surgeons.

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### Introduction

One of the biggest challenges in surgery has been to disseminate innovations worldwide, especially to low- and middle-income countries where access to information has always been more difficult.

During the past decade, social media (SoMe) has developed powerful platforms and tools to change this reality.

Social media describes the means of interactions among people in which they create, share, and exchange information and ideas in virtual communities and networks.<sup>1</sup> In addition, social media tools can help promote healthy behaviors and educate and engage with patients. Surgeons everywhere can access social networking platforms for free, such as media-sharing sites, virtual reality environments, blogs and microblogs, the most common being Facebook, Instagram, Twitter, Youtube, LinkedIn, and Wikipedia, although countless others exist.

The number of surgeons using social media is consistently rising, and scientists from around the globe have been able to share their ideas about very diverse scenarios and issues, even in distant countries with many different languages and cultures. Some examples of this growing phenomenon are that by 2006, only 5% of physicians used social media, whereas, by 2016, this number raised to approximately 69%.<sup>2</sup>

With a simple click, an innovative manuscript published in *Surgery* in the United States can travel across the sea and reach a physician in India, who can now directly contact the authors to ask

questions and get quick and direct feedback, which would have been impossible before.<sup>3</sup>

The benefits of using social media have been motivated by endless opportunities and improvements, including better communication, clinical education, mentorship, and promotion of public health strategies.<sup>4</sup>

Access to international referents that can advise and mentor international surgeons in charge of writing these manuscripts is as achievable as ever. An example of this can be found in the Twitter account @latamccr, which was created to disseminate and propose different collaborative projects related to colorectal surgery among surgeons in Latin America. In this account, messages from world-renowned surgeons like Steven Wexner, Antonino Spinelly, Antonio Caycedo-Marulanda, and Julio Mayol highlight the importance of scientific research and collaboration. It is worth mentioning that this support was given after being contacted using SoMe without expecting anything in return.

However, there are important limitations on social media that should be carefully considered. The most important are the quality and reliability of the information. One should be aware of the risks and consequences of inadequate use of social media, such as damage to professional image, breaches of patient privacy, licensing, and legal issues.<sup>5</sup> To that end, several medical and surgical societies have developed guidelines for using social media.

Nevertheless, although disruptive, these new virtual tools are now part of our professional activities and should be used to improve health care opportunities.<sup>6</sup>

### Methods

In this review, we will discuss how social media can help international surgeons face the challenges of medical and surgical practice.

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 **Tweet map - Search analytics for "@surgjournal"** From Jun. 19, 1:59 pm to Jun. 29, 12:28 am (saved by @juliomayol on Jun 28, 2022)



**Figure 1.** Interactions with *Surgery* across the world.

### Using social media to spread knowledge

Let's say you are a surgeon working as a journal editor or, even better, a surgeon aiming to publish a manuscript in a journal. The traditional way would be to aim for a high-impact journal and expect that, by doing so, you would get an adequate audience who would access your manuscript by subscribing to the journal in which your manuscript is published.

This traditional, perhaps even historical, trend seems to be changing today. Although a high-impact factor for a journal is highly valued, a proactive social media team that successfully manages to relay important and timely information from their publications to readers worldwide could be more appealing to authors and consequently increases the number and quality of manuscripts being received.

More importantly, very influential social media users with a large following can quickly and easily disseminate published work to their followers, thereby extending the potential reach of the information that authors want to relay on a global scale. [Figures 1 and 2](#) show interactions related to *Surgery Journal* Twitter accounts worldwide.

### Implications of using social media in medical decisions and professional networking

Now, imagine that you are a junior attending a medium-volume center in Argentina and have a rectal cancer patient who, after neoadjuvant therapy, has a near-complete response. Again, the traditional way would be to discuss this in your hospital's

Multidisciplinary Team meeting and depend on the knowledge of only a relatively small group of physicians to decide on treatment.

Well, thanks to social media, that paradigm is also shifting. Today, you are one click away from getting opinions from top experts worldwide. Not only is this a learning experience for you to base treatment decisions on a broader number of well-informed opinions, but also for all those reading and participating in the discussion thread. We are speaking of hundreds of physicians from around the globe, low-, middle-, and high-income countries, who will now have access to information on which to base decisions when they face a similar scenario.

The concept of crowdsourcing to solve problems or to provide opinions and requested information in difficult scenarios has been adopted in many different ways. Caregivers from low-income countries can access caregivers in more medically advanced locations, and surgical procedures can be proctored and streamed in real time. Social media and live streaming can now enhance medical, educational activities to provide real-time information exchange and learning opportunities, including webinars, seminars, congresses, case discussions, and surgical techniques, among many other educational platforms. [Figure 3](#) shows numbers associated with polls on a "What would you do" question.

### Access to collaborative studies

Social media has also helped the development of international collaborative research studies and exchanges between surgical communities. International multicentered studies have been promoted using social media with an impressive response among users.

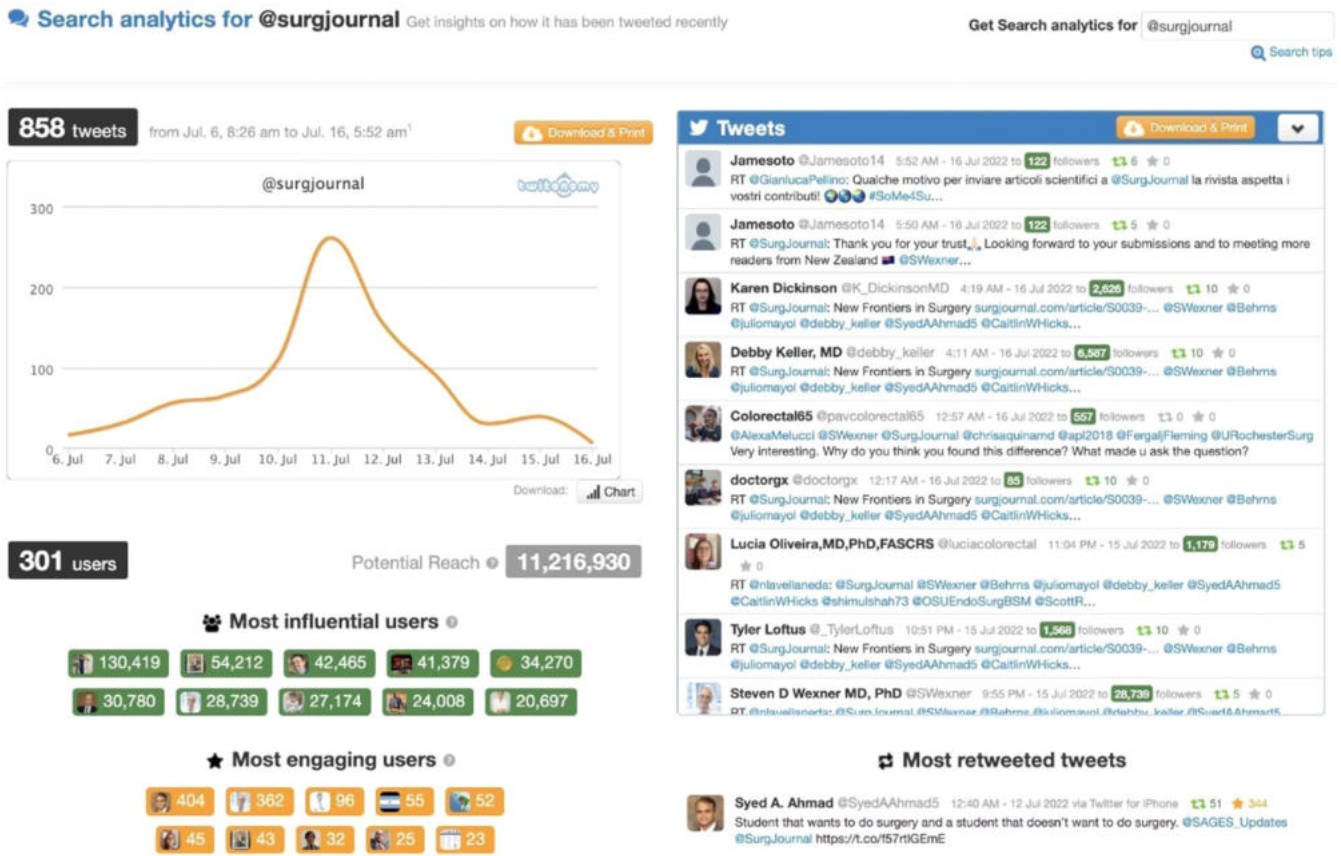


Figure 2. Summary of activity of Surgery's twitter account, showing a high potential reach (>10 million people), and most influential Twitter accounts linked to Surgery.

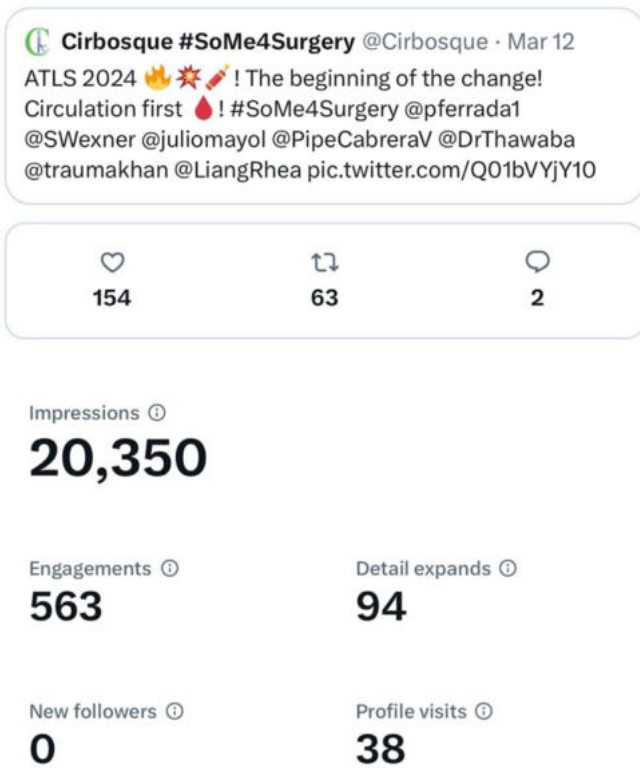


Figure 3. Image of a “What would you do?” poll and metrics, coming from Colombia.<sup>3</sup>

This has been a game-changer for many surgeons who live and practice in areas that have traditionally been excluded from large collaborations. Today, through social media news, you can access information about multicenter studies such as the EAGLE study<sup>7</sup> and many of the initiatives related to the Covid-Surg collaborative group,<sup>8</sup> among many others. Many of these studies are not only open but actively seeking active representation from institutions in countries worldwide and are spreading the word using different social media platforms.

Furthermore, not only can surgeons from around the world now access the research efforts of high-income countries, but more recently, several initiatives have been organized in regions with low- and middle-income countries, and they have shared novel information about outcomes of patient treatments which was, to date, non-existent. Among these are research initiatives related to inflammatory bowel disease and colorectal cancer in Latin America, among others.<sup>9,10</sup>

#### Other uses of social media for international surgeons

Social media offers a many other opportunities to access across the globe.

To start, access to academic positions and promotions are announced on social media, changing the traditional way of seeking academic positions. Medical and surgical journals can use social media platforms to advertise academic positions and connect with potentially suitable candidates. Social media's reach has also allowed international surgeons to actively participate in surgical journals that are US based. With the ability to communicate,

virtually meet, and post in real-time across multiple platforms, opportunities are equally open for international surgeons. The *Surgery* journal is a prime example of this. The Digital Media team is led by editors from the United States and Spain, and committee members hail from Latin America, South America, Europe, and the Middle East. Not only does this create academic opportunities for surgeons worldwide, but it also guarantees a broad geographic diffusion of its publications.

Social media platforms are also valuable for continuing education. The traditional learning model of buying a printed textbook to study and learn a specific surgical technique still exists but is expensive and only available to a limited number of surgeons, primarily in high-income regions. Social media has democratized surgical education. Surgeons are increasingly using social media to access the most current sources from verified experts, looking into platforms like YouTube, journal websites, closed Facebook communities, and posts by surgeons themselves on Twitter and Instagram. All for free, anywhere in the world at any time. Social media creates a virtual operating room. This reality is reflected in the fact that many surgical journals, including *Surgery*, now have their own YouTube channels where surgeons can enhance their learning experiences.

Finally, another social media tool that has gained popularity over the past few years is using Blogs and Microblogs to disseminate various text, video, and audio media in an open forum. The most used microblogging platform for caregivers is Twitter, a very dynamic social media tool where they can share and discuss medical topics and find solutions to uncommon or common dilemmas for a worldwide audience.

In conclusion, this review aims to summarize different social media platforms and opportunities that caregivers, particularly surgeons, from all over the world can access. Because the possibilities are endless, this review is intended to showcase the most commonly used platforms. In the near future, almost all clinical advances, academic opportunities, and learning experiences will go through social media channels. If you have still not embraced the use of this important resource to learn and

improve your daily practice, you might consider starting your journey today.

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