

Twitter's usefulness for medical students: the role of one social media platform in medical education

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Ontarios Doctors @ontariosdoctors • 19m

Since its creation in 2006, Twitter's popularity has rapidly grown. With more than 255 million users sending in excess of 500 million tweets daily, it is one of the top-10 most frequently visited websites on the Internet.¹ Among medical students, Twitter is currently an underutilized tool. There are many uses for such a platform within the medical community, including acting as a network where medical students, patients, residents, physicians, and other health care providers can communicate with one another. And yes, we realize this intro is longer than Twitter's allotted 140 characters.

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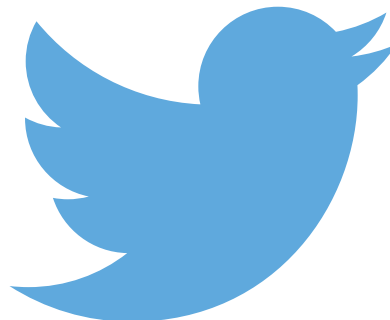
Its potential in medicine was identified early on by Phil Baumann, who in 2009 created a list of 140 potential uses for Twitter in health care.² This list includes supportive care for patients and family members, daily health tips from authoritative sources, physician opinion-sharing, medical education, publishing health-related news, fundraising for hospitals and health-related causes, and live-tweeting at medical conferences.

In recent years, Twitter's potential has begun to be exploited, as an increasing number of physicians are using it in their daily communications. Its use by certain special interest groups to gather public opinion and introduce targeted campaigns has also been identified.³ In addition, medical schools, journals, hospitals, and biotech organizations, among other entities, are also tweeting daily to interact with the public and stakeholders, as well as to enhance professional collegiality and scientific research.

According to a 2013 edition of *Journal Citation Reports*, nine of the top-10 general medical journals have a dedicated Twitter feed that promotes new articles and features in their publications. This alone has the potential to help medical students increase their awareness of important health topics that will be useful in both their studies and future careers.

★ Twitter as an educational tool for medical students

Twitter's main advantage for medical students is that it provides a convenient platform for staying abreast of current medical events and daily news. Rather



than bouncing between numerous websites, Twitter provides a constantly updated amalgamated stream of relevant articles to explore.

One aspect of Twitter that easily facilitates the sharing of information is known as a hashtag, which is a word or phrase preceded by a pound sign (#). Hashtags are used to identify messages on a specific topic. With millions of tweets being posted at any given time, sifting through them can be difficult. Hashtags help solve this problem by making it easy to search for tweets with specific hashtags that are of interest to students.

The use of hashtags makes Twitter a useful study tool and support network for medical students.^{4,5} Students can tweet questions to each other using hashtags that allow their questions to be easily searched and accessed. Students can offer support, study tips, and encouragement to each other through reflection and the sharing of memorable learning experiences. These questions are available not only to students, but also to other health care professionals who can provide answers.

Twitter can become a tool for engaging in active learning, a forum for debate and patient advocacy, a resource to reinforce classroom knowledge, and a means for promoting collaboration among medical students across the world. It can be difficult for students who are new to Twitter to identify medical-related feeds worth following. We've listed our top Twitter feeds in the table on page 9. These feeds provide an excellent starting point for you to build, or update, your Twitter profile.

Co-author Andrew Micieli created and operates a Twitter feed specifically tailored for medical students called Med-StudentBlog (@medstudent_blog) — an interactive feed that highlights interesting news stories that directly affect medical students. By using the hashtag #MedEd (for medical education) in tweets, the blog is able to facilitate easy access to an aggregate of medical education news, in

addition to communication and healthy debate among both medical students and other health care professionals.

During health care conferences, live tweeting has become a useful way for medical students to connect with the medical community through the sharing of medical knowledge and health care innovations in real time.⁶ Conference-specific hashtags have been created for these events that allow attendees and Twitter users to stay up-to-date on the conference through live tweeting, while also engaging in a dialogue about its content.

For example, the Canadian Medical Association 2013 General Council in Calgary used the hashtag #CMAgc to promote the conference discussion on pertinent issues facing the Canadian health care system. During the week-long conference, more than 2,860 tweets were sent

using the hashtag #CMAgc.⁷ For a comprehensive list of health care conferences and their associated hashtags from 2011 through to 2015, visit <http://www.symplur.com/healthcare-hashtags/conferences/all>.

One way to quantify Twitter's growing influence on medical education and the medical community is to track the #MedEd hashtag. Using the health care social media analytics database Symplur, it is possible to track this hashtag over a one-year period. From November 1, 2011 to November 1, 2012, a total of 62,462 tweets were sent using the hashtag #MedEd, with a total of 8,197 participants. These numbers grew to 133,963 tweets sent, with a total of 18,110 participants the following year. The above statistics demonstrate the two-fold increase in medical education tweets from one year to the next, and this trend is expected to continue in the future.

Limitations of Twitter and future use

Like other social media outlets, there are limitations to using Twitter. For first-time users, Twitter can feel overwhelming and has the potential for unprofessional behaviour when not used appropriately. Many students do not see social media as part of their professional identity, and it can be difficult to differentiate between public and private content. This can give way to lapses in professionalism.^{8,9}

The permanence and worldwide reach of online posting is important to keep in mind. There are inherent risks in placing any content online, as online misdemeanours can affect one's future employment, and can compromise the public's perception of the medical field.^{10,11}

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User Name	About	Tweets*	Followers*
Top study tool Twitter feeds		* as of July 31, 2014	
USMLE (@master_usmle)	United States Medical Licensing Exam	17,700	58,300
Radiopaedia.org (@radiopaedia)	Collaborative radiology resource	3,143	7,725
Figure 1 (@figure1)	Photo sharing app	553	924
Top medical news Twitter feeds			
André Picard (@picardonhealth)	Public health reporter	31,600	25,700
NYTimes Health (@nytimeshealth)	New York Times health news	20,600	644,000
OMA (@OntariosDoctors)	Ontario Medical Association	5,839	13,200
healthydebate.ca (@HealthyDebate)	Debate about health policy issues	3,806	5,186
ICES (@ICESOntario)	Institute for Clinical Evaluative Sciences	1,976	3,861
Top medical student Twitter feeds			
MedStudentsBlog (@medstudent_blog)	News affecting medical students	868	2,864
Cdn Medical Students (@CFMSFEMC)	Canadian Federation of Medical Students	1,279	2,921
Medscape Med Student (@MedscapeStudent)	Medscape Medical Students	8,801	18,600
Top physician Twitter feeds			
Dr. Kevin Pho (@kevinmd)	Physician, author, keynote speaker	27,400	107,000
Dr. Brian Goldman (@NightShiftMD)	Emergency room physician, author, and host of CBC's <i>White Coat, Black Art</i>	15,300	118,000
Dr. Atul Gawande (@Atul_Gawande)	Physician, writer, researcher	2,083	94,200
Top journal Twitter feeds			
CMAJ (@CMAJ_News)	<i>Canadian Medical Association Journal</i>	3,582	11,000
JAMA (@JAMA_current)	<i>Journal of the American Medical Association</i>	6,916	84,900
BMJ (@BMJ_latest)	<i>British Medical Journal</i>	15,800	133,000
Top medical education Twitter feeds			
MedEd Chat (@MedEdChat)	Medical education chat	3,258	2,430
Dr. Jason Frank (@drjfrank)	Clinician educator, emergency medicine physician	17,100	2,597
The Royal College (@Royal_College)	The Royal College of Physicians and Surgeons of Canada	3,561	3,678

the medical humanities and it is our hope that both students and their patients will reap the benefits of this effort. ■

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Twitter's usefulness for medical students

A 2013 survey demonstrated that an increasing number of surgical residency program directors look at an applicant's social networking profiles. The applicant is often judged differently once their social media site has been viewed, and one-third ranked an applicant lower after investigating their online presence.¹² It is important for medical students to remember that online activity holds many benefits for promoting accomplishments and past activities, but may also have negative implications for their future careers if their online activity is unprofessional."

In 2013, the Canadian Federation of Medical Students (CFMS) published guidelines on social media professionalism, which state that medical students, as proto-professionals, should act in a way that they would feel comfortable observing their own physicians acting away from clinical duties.¹³ This document provides information on how medical students should conduct themselves in the public eye, as well as guidelines regarding professional boundaries online. The CFMS guidelines are currently being used at a number of Canadian medical schools to provide concrete guidance to medical students.

An online guide is also being developed at the University of Ottawa by Andrew Micieli as part of the medical school curriculum. Designed to help educate medical students on the use of Twitter as an educational tool, the guide also provides information, instruction and guidelines on online professional behaviour that build on those created by the CFMS.

Three general recommendations for students using Twitter are: 1) to be-

come familiar with Twitter before starting to tweet; 2) to remember that what you post online is your digital footprint and can be traced back to you, and; 3) to create subscription lists to keep social and educational home feeds separate.

While the use of Twitter is expanding in the field of medicine, currently it is a tool that is underutilized by medical students. Twitter has the potential to be a very useful resource for students, and it is our hope that this article helps to outline some of its many educational benefits, provide a list of recommended feeds to customize your account, and offer useful tips for overcoming some of the barriers to using this valuable tool. ■

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