UCSF

UC San Francisco Previously Published Works

Title

Use of social media in urology: data from the American Urological Association (AUA).

Permalink

<https://escholarship.org/uc/item/01b7671t>

Journal

BJU international, 113(6)

ISSN

1464-4096

Authors

Loeb, Stacy
Bayne, Christopher E
Frey, Christine
et al.

Publication Date

2014-06-01

DOI

10.1111/bju.12586

Peer reviewed

Use of social media in urology: data from the American Urological Association (AUA)

Stacy Loeb¹, Christopher E. Bayne², Christine Frey³, Benjamin J. Davies⁴, Timothy D. Averch⁴, Henry H. Woo⁵, Brian Stork⁶, Matthew R. Cooperberg⁷ and Scott E. Eggener⁸; on behalf of the American Urological Association Social Media Work Group

¹Department of Urology and Population Health, New York University and the Manhattan Veterans Affairs Medical Center, New York, NY, ²Department of Urology, The George Washington University, Washington, DC, ³American Urological Association, Linthicum, MD, ⁴Department of Urology, University of Pittsburgh, Pittsburgh, PA, USA; ⁵Sydney Adventist Hospital Clinical School, University of Sydney, Sydney, NSW, Australia; ⁶West Shore Urology, Muskegon, MI, ⁷Department of Urology, University of California San Francisco, San Francisco, CA, and ⁸Section of Urology, Department of Surgery, University of Chicago, Chicago, IL, USA

Objective

To characterise the use of social media among members of the American Urological Association (AUA), as the use of social media in medicine has greatly expanded in recent years.

Subjects and Methods

In December 2012 to January 2013, the AUA e-mailed a survey with 34 questions on social media use to 2000 randomly selected urologists and 2047 resident/fellow members. Additional data was collected from Symplur analytics on social media use surrounding the AUA Annual Meeting in May 2013.

Results

In all, 382 (9.4%) surveys were completed, indicating 74% of responders had an online social media account. The most commonly used social media platforms were Facebook (93%),

followed in descending order by LinkedIn (46%), Twitter (36%) and Google+ (26%). Being aged <40 years was an important predictor of social media use (83% vs 56%), with greater uptake among residents/fellows compared with attendings (86% vs 66%). Only 28% of respondents used social media partly or entirely for professional purposes. During the 2013 AUA Annual Meeting, there were >5000 tweets from >600 distinct contributors.

Conclusion

As of early 2013, among respondents to an e-mail survey, most urologists and urology trainees used some form of social media, and its use in urology conferences has greatly expanded.

Keywords

social media/trends, social medial/utilisation, humans, information, dissemination/methods

Introduction

Social media is broadly defined as a category of Internet-based resources integrating user-generated content and user participation. These span a wide range of platforms including social networks, e.g. Facebook and Twitter, to blogs and photograph- or video-sharing sites.

During the past decade, social media has become increasingly popular for personal and professional use. In particular, there has been a recent explosion in the use of these technologies for scientific exchange. For example, the Social Oncology Report describes the importance of social media in light of the tremendous increase in oncology citations in PubMed [1]. The authors discuss how social media can tackle this information

overload and 'distil the wealth of knowledge created each day' by 'allowing like-minded groups of doctors to coalesce, joined by a host of other stakeholders from patient to advocates to caregivers to industry'. Twitter in particular has become a forum for the very rapid dissemination of breaking news in science and healthcare. Until very recently, a ground-breaking study might get picked up by a reporter at a scientific meeting, written up, and published the next day, perhaps within hours, on an individual news website. Now the key findings might be distilled into a sentence and a photograph of the conclusion slide, 'tweeted' by a few audience members, and transmitted around the world in seconds.

The role of social media in urology has been somewhat limited until recently. For example, a PubMed search of

'Twitter AND urology' yielded only two hits, including one study describing a lack of utility for social media with regard to incontinence [2].

Today, social media use in urology is on the rise with participation from all of the major urology organisations and journals. For example, a recent report in the *BJU International* indicated their followers grew by one third from January to April 2013, with continued growth at a rate of ≈ 100 new Twitter followers per month [3]. This has been accompanied by significant increases in both the Klout score and PeerIndex rating, measures of social media influence. Additional recent developments include a monthly Twitter-based urology journal club initiated in 2012 with contributions from around the world [4]. Other potential applications of social media in urology include learning about major news and research developments, advocacy, networking, crowd-sourcing, and advertising [5].

The AUA has also recently expanded its involvement in social media [6]. The goal of the present study was to characterise the current status of social media among AUA members and participation at the 2013 AUA Annual Meeting. In addition, we sought to determine which factors are associated with use or rejection of social media by urologists and trainees.

Subjects and Methods

Mixed methods were used to examine the study question of understanding the social media use patterns of AUA members, including an e-mail-based survey and Twitter analytics from the 2013 AUA Annual Meeting.

Social Media Survey

First, a survey on social media use was designed by the AUA Residents Committee and reviewed by the Member Services and Marketing Departments. The survey took ≈ 10 min to complete, consisting of 33 closed-ended questions and one open-ended question.

Invitations to participate in the survey were e-mailed on 20 December 2012, to a random sample of 2000 attending urologists and all 2047 resident/fellow members with valid e-mail addresses. For those who had not completed the survey, four follow-up reminder e-mail invitations were sent over the following 3 weeks. The survey was closed on 14 January 2013.

Twitter Statistics

To complement the study with more recent trends in Twitter use, the Symplur healthcare analytics website was used to examine traffic related to the 2013 AUA Annual Meeting in San Diego, CA, USA. Symplur is part of the Healthcare Hashtag Project and provides a webpage with customisable participation and influencer metrics. This feature was used to

generate statistics for the number of impressions, unique tweets (excluding retweets), and distinct contributors who used the indexing hashtag #AUA13. Statistics were collected for the immediate 30-day period before and after the meeting (4 April 2013 at 00:00 Pacific Standard Time [PST] or Greenwich Mean Time [GMT] -0800 to 7 June 2013 at 23:59 PST/GMT -0800). In these analytics, a tweet is defined as a ≤ 140 character social media entry on Twitter, and a retweet means the redistribution of a tweet from one user by another user. In addition, Symplur calculates 'impressions' by multiplying the number of tweets per participant by the number of followers for that participant, and summing these numbers across all participants during the period evaluated.

Results

From a total of 4047 survey invitations, 382 (9.4%) were completed. This included 235 attending urologists and 147 residents/fellows. Table 1 shows the demographics of the study population.

Overall, 74% of AUA members responding to the survey indicated they have an online social media account. Residents/fellows were significantly more likely than attending urologists to have an online social media account (86% vs 66%). Similarly, younger urologists (aged <40 years) were significantly more likely than older urologists (≥ 40 years) to have an online social media account (83% vs 56%; Table 2).

Of the respondents with an online social media account, Facebook accounts were the most common (89% of attendings and 98% of residents/fellows). The next most commonly used platform was LinkedIn (48% attendings vs 42% residents/fellows), followed by Twitter (36% attendings vs 35% residents/fellows) and Google+ (24% attendings vs 29% residents/fellows; Fig. 1A).

When asked what their social media accounts are used for, 70% indicated personal reasons (62% attendings vs 80% residents/fellows). Only 16% indicated they use some social media accounts for personal use and others for business, while very few used the same accounts for both personal and business (8%), or had business accounts only (4% total; Fig. 1B).

When asked how often respondents access their social media accounts, the only site accessed by at least half on a daily basis was Facebook (50% of respondents use at least once per day). Meanwhile, 23%, 29%, and 25% of respondents had set up Twitter, Google+ and LinkedIn accounts they had not yet used.

Only about one-third of respondents (31% of attendings vs 33% of residents/fellows) reported viewing an AUA social media website, with Facebook as the most common. Most residents and attendings preferred AUA-related social media containing a combination of news and social information.

Table 1 Demographics of respondents.

	Total respondents, % n = 382	Attending urologists, % n = 245	Residents/fellows, % n = 147
Age (in years):			
25–29	12	0	31
30–34	28	10	58
35–39	16	21	8
40–44	7	11	1
45–49	10	15	1
>50	27	43	1
Gender:			
Male	85	91	75
Female	15	9	25
Medical school graduation year:			
Before 1991	30	47	2
1991–1996	8	14	1
1997–2001	8	11	3
2002–2006	27	26	28
After 2007	27	2	66
Post-graduate year of resident/fellow			
PGY-1	–	–	10
PGY-2	–	–	15
PGY-3	–	–	10
PGY-4	–	–	19
PGY-5	–	–	18
PGY-6	–	–	14
PGY-7	–	–	11

Table 2 Percentage of respondents who have a social media account.

	Have a social media account, %	Do not have a social media account, %
Total respondents	74	26
Attending urologists	66	34
Residents/fellows	86	14
Respondents aged <40 years	83	17
Respondents aged ≥40 years	56	44

Although very few respondents had ever closed a social media account, most residents (89%) and attendings (52%) had changed their privacy settings. The most commonly cited reason was to avoid the public, and to a lesser extent patients, from viewing their photographs and postings. For example, nearly two-thirds of respondents did not list a personal e-mail or telephone number on their social media profile.

While younger respondents (aged <40 years) were more likely to engage with professional colleagues on social media, most members reported some selectivity in accepting invitations to connect from colleagues, particularly those that they did not consider as a friend. Overall, 39% of attendings and 10% of residents/fellows reported having been contacted by a patient with social media.

Additionally, the total number of impressions for the #AUA13 Twitter hashtag was 9 163 185. There were a total of 5058

tweets from 644 contributors (Table 3). On 9 May 2013, the day after the Annual Meeting, the AUA had 2958 Twitter followers and 4305 Facebook fans. More than 100 new Facebook fans were added over the course of the meeting.

Discussion

We found that most of the AUA members responding to the e-mail survey used some form of social media (74%). Facebook was the most common platform to which AUA members belonged, and members interact with the AUA most frequently using Facebook. Social media were also used by most respondents to interact with professional colleagues.

Since this survey, Twitter use appears to be growing with >5000 tweets from over 600 unique contributors at the 2013 AUA Annual Meeting, accompanied by a substantial increase in the Facebook engagement. These results compare favourably with analytics from the earlier 2013 European Association of Urology (EAU) Annual Congress held in Milan, Italy 15–19 March 2013. The EAU meeting was indexed using the hashtag #EAU13. Symplur metrics for #EAU13 30 days immediately before and after the meeting (13/2/2013 at 00:00 PST/GMT –0800 to 18/4/2013 at 23:59 PST/GMT –0800) calculate 1 686 351 impressions from 1819 tweets by 246 participants [7]. The increase in social media use between

Fig. 1 (A) Types of social media accounts, and (B) how they are used.

Table 3 Symplur.com analytics from AUA 2013 meeting using #AUA13 Twitter hashtag.

4 April 2013 at 00:00 PST to 7 June 2013 at 23:59 PST*	
Total impressions	9 163 185
Total tweets	5 058
Total participants	644

*Symplur. #EAU13 Healthcare Social Media Hashtag. [place unknown]: Symplur; 2013. Available at: <http://www.symplur.com/healthcare-hashtags/eau13/>. Accessed November 2013.

the March #EAU13 and the May #AUA13 statistics represents, among other possible causes, the expanding role of social media in urological meetings.

Moreover, data from the 2012 Australasian Prostate Cancer Conference showed during the course of the 4-day meeting in Melbourne, more than 74 accounts were engaged from eight

countries in four continents [8]. This included many remote participants to the discussion, illustrating the ability of social media to convert local urology conferences into global exchanges. Another potential use of social media in urology is to help resolve surgical challenges through insights from international colleagues [9].

More than simply a platform for scientific exchange, Twitter, along with various blogging sites, has become a very important forum for discussion of controversial policy issues directly affecting urology and urologists. The debates about PSA-based screening for prostate cancer, urologist ownership of ancillary services, and a host of issues around healthcare reform have been repeatedly fought on Twitter, 140 characters at a time. For example, after the announcement of the US Preventive Services Task Force recommendations against PSA screening, Prabhu et al. [10] reported there were 1272 related tweets within a 20-h period. Of the 123 who expressed an

opinion, 76% were pro-screening and reached a total of 186 744 followers. Journalists and policymakers use Twitter to engage with urologists during a perceived breaking news event. Therefore, it is essential urologists be engaged and ready to counter false information, which may circulate around these and other issues.

Despite the many potential benefits, urology may be lagging behind other specialties in social media engagement. For example, although prostate cancer had a slightly higher incidence in the USA according to 2013 data from the American Cancer Society [11], breast cancer generated a substantially higher volume of online discussions [1].

Leveridge and Fuoco [12] recently surveyed members of the Canadian Urological Association (CUA) on their professional and personal use of social media, with a 45.4% response rate. In their study, 30% reported using social media for passive consumption and 12% posted/updated frequently. Inter-professional communication was considered a perceived role of social media by 67% of responders, while 59% considered it a simple information repository. Of the CUA urologists, 73% responded social media was unavoidable in the future, but 89% were concerned that 'unprofessional' activity may put them at risk of discipline. The authors concluded social media is ubiquitous, in particular among younger participants as was observed in our AUA survey. Therefore, concerted efforts for education, expanded use, and eradicating barriers are paramount to the future evolution of social media use.

Indeed, while awareness and activism are important, social media can also be problematic for physicians if not used properly, including the potential for penalties and sanctions. As such, many professional organisations have created guidelines on the proper use of social media. For example, the Federation of State Medical Boards (FSMB) cautions social media posts may be disseminated to a larger audience and potentially taken out of context [13]. They recommend using separate accounts for personal and professional networking, which was the case for most of the AUA members in our present survey.

There is considerable debate about how physicians should engage patients with social media. While official organisations might call for separate accounts, many physicians view this as operationally impossible and inconsistent with professional identity. As social media grows, separating professional identity from personal identity is essentially impossible. Moreover, professional and personal identity separation may be more harmful than helpful [14].

The AUA has recently created its own best practices for social media, recognising its important potential for learning and contributing to advancement in the field of urology. This best practice statement emphasises the importance of transparency and professionalism, while avoiding any content that violates patient confidentiality or copyright laws.

One way to potentially avoid some of these issues is the use of physician-only social media platforms such as Doximity and SERMO. Although these platforms were not directly examined in the present study, Doximity reports 2121 USA urologists as members, which is about average relative to other specialties [personal communication]. SERMO similarly reported >2000 urologist registrants with >20% considered active and slightly less postings than the average SERMO physician [personal communication]. It is unclear to what extent urologists are routinely using these platforms to communicate with each other or with physicians in other specialties, and what value they bring to clinical care.

Several limitations of the present study deserve mention. Although the survey was e-mailed to a random sample of >4000 attendings, fellows and residents, the response rate was 9.4%. There may be systematic differences between those who do and do not respond to an e-mail survey that might be linked with the likelihood of social media use. For example, individuals who readily participated in an online survey may be more likely to participate in other online activities such as social media.

Another limitation of the present study is that even Symplur Twitter analytics cannot fully characterise the impact or dissemination of tweets from the 2013 AUA Annual Meeting. In particular, we cannot quantify the number of passive followers, non-users who read the Twitter feed on boards at the meeting, or even directly related tweets about the meeting that did not include the #AUA13 hashtag. All of these factors would probably result in an underestimation of the true impact from social media at the meeting. Finally, it is worth mention that Symplur analytics are time-varying, and that Symplur calculates metrics in PST, which may account for minor differences in real-time Twitter activity.

In conclusion, based on responders to an e-mail survey, most urologists and particularly trainees in the AUA already use some form of social media, and use is increasing at urological meetings. Engaging in social media in compliance with published guidelines provides a useful platform for the exchange of urological information. Further study is warranted to better characterise the true impact of social media in urology.

Conflict of Interest

None declared.

References

- MDigitalLife. *The Social Oncology Project 2013* [Internet]. [place unknown]: W2O Group; 2013 May. Available at: <http://www.wcgworld.com/mdigitallife/>. Accessed June 2013
- Sajadi KP, Goldman HB. Social networks lack useful content for incontinence. *Urology* 2011; 78: 764–7

- 3 Murphy DG, Basto M. Social media @BJUjournal – what a start! *BJU Int* 2013; 111: 1007–9
- 4 Woo H. International Urology Journal Club on Twitter [Internet]. [place unknown]: *BJU Int*; 2013 Jan 3. Available at: <http://www.bjuinternational.com/bjui-blog/international-urology-journal-club-on-twitter/>. Accessed June 2013
- 5 Loeb S. *Twitter in Urology*. [place unknown]: UrologyMatch.com; 2013. Available at: <http://www.urologymatch.com/StacyLoeb/>. Accessed June 2013
- 6 Davies BJ, Larche J. *Social Media: Impacting Practice and Helping Providers Stay Connected*. Linthicum: American Urological Association, 2013: Available at: http://issuu.com/auamarketing/docs/globalconnectionsspring2013_finalweb/. Accessed June 2013
- 7 Symplur. #EAU13 Healthcare Social Media Hashtag. [place unknown]: Symplur; 2013. Available at: <http://www.symplur.com/healthcare-hashtags/eau13/>. Accessed November 2013
- 8 Basto M, Wilkinson S, Hall B, Benson C, Murphy D. Twitter or wither: implications of Twitter activity analysis from the Australasian Prostate Cancer Conference 2012. Videoposter presented at: British Association of Urological Surgeons 2013 Annual Meeting. 17–20 Jun 2013; Petersfield, Manchester, UK
- 9 Collins J. *Social Media as a Conduit for Resolving Surgical Challenges* [Internet]. [place unknown]: *BJU Int* 2013 3 June. Available at: <http://www.bjuinternational.com/bjui-blog/social-media-as-a-conduit-for-resolving-surgical-challenges/>. Accessed June 2013
- 10 Prabhu V, Lee T, Lepor H, Holmes JH, Makarov D. Using social media to gauge reaction to the United States Preventive Services Task Force's (USPSTF) report: twitter as an investigative tool. Abstract presented at: American Urological Association 2012 Annual Meeting. 2012 May 19–23; Atlanta, GA, USA
- 11 American Cancer Society. *Cancer Facts & Figures 2013*. Atlanta: American Cancer Society, 2013: Available at: <http://www.cancer.org/acs/groups/content/@epidemiologysurveillance/documents/document/acspc-036845.pdf>. Accessed June 2013
- 12 Leveridge M, Fuoco M. Attitudes toward and use of social media among urologists. *CAJU* 2013; 7 (Suppl. 2): S126
- 13 Federation of State Medical Boards. *Model Policy Guidelines for the Appropriate Use of Social Media and Social Networking in Medical Practice* [Internet]. Eulless: Federation of State Medical Boards, 2012: Available at: <http://www.fsmb.org/pdf/pub-social-media-guidelines.pdf>. Accessed June 2013
- 14 DeCamp M, Koenig TW, Chisolm MS. Social media and physicians' online identity crisis. *JAMA* 2013; 310: 581–2

Correspondence: Stacy Loeb, 550 1st Ave, VZ 30 (6th floor, #612), New York, NY 10016, USA.

e-mail: stacyloeb@gmail.com

Abbreviations: CUA, Canadian Urological Association; EAU, European Association of Urology; GMT, Greenwich Mean Time; PST, Pacific Standard Time.