

Contemporary social network sites: Relevance in anaesthesiology teaching, training, and research

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Abstract

Objective: The phenomenal popularity of social networking sites has been used globally by medical professionals to boost professional associations and scientific developments. They have tremendous potential to forge professional liaisons, generate employment, upgrading skills and publicizing scientific achievements. We highlight the role of social networking mediums in influencing teaching, training and research in anaesthesiology.

Background: The growth of social networking sites have been prompted by the limitations of previous facilities in terms of ease of data and interface sharing and the amalgamation of audio visual aids on common platforms in the newer facilities.

Review: Contemporary social networking sites like Facebook, Twitter, Tumblr, LinkedIn etc and their respective features based on anaesthesiology training or practice have been discussed. A host of advantages which these sites confer are also discussed. Likewise the potential pitfalls and drawbacks of these facilities have also been addressed.

Conclusion: Social networking sites have immense potential for development of training and research in Anaesthesiology. However responsible and cautious utilization is advocated.

Key words: Anesthesia, information dissemination, multimedia, social networking, software

Introduction

Social network sites (SNS) are internet services where individuals create public/semipublic profiles and share connections. Shared contents are subsequently shared by users who may/may not be connected personally or online. Learning potential through these mediums has been observed in various medical disciplines.^[1,2] As SNS integrate tools such as mobile connectivity, instant messaging, blogging, pictures/video sharing facilitating information proliferation, and dissemination.

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This article explores their potential in influencing training and research in anaesthesiology. Their pitfalls are also highlighted.

History of Anesthesia-Related Social Network Sites

“Global Anaesthesiology Server Network” is the precursor of anesthesia-related SNS. Functioning since 1994 (from Yale Centre for Medical Informatics) it offers resources like case discussion, opinions, journals, book reviews, videos, meeting intimation, and softwares. Added attractions include employment archives, anesthesiologists’ E-mail database, critical event reporting system, and links

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to societal sites dedicated to technological advancement in anesthesiology. Simulator softwares related to difficult airway and transesophageal echocardiography also exist.

Factors Promoting Growth of Anesthesia-Related Social Network Sites

Previous E-mail groups had bandwidth, copyright, and ownership concerns restricting image, PDF files or video transfers. SNS facilitated straightforward communications allowing virtual public gathering connecting individuals sharing professions and scientific/academic inclinations.

Common Contemporary Social Network Sites

1. Facebook: Arguably the most popular SNS, where specific domain-based online groups are created. Affiliations (educational/workwise), subspecialty (neuro/cardiac/regional anesthesia, pain, or critical care), exam preparation (FRCA, EDAIC, DNB, DHA, HAAD, MOH, ANZCA, etc.) based groups with closed (membership based) or open access exist. Links of upcoming conferences/meetings are posted.
2. Twitter: Twitter accounts can be individual or group based (exam preparation, professional affiliations, etc.) where tweets (maximum 140 characters) are “followed.” During conferences digital “backchannel” allow nonverbal and real-time projection of tweet where speakers present in the conventional “front” area and the remote located audience mutually communicate using the “back” area. A 530% increase occurred in the Association of Anesthetists of Great Britain and Ireland conference activity in 2012 with extensive Twitter application compared to its initial usage (2011).^[3] Speakers promoted their topics/messages.^[3] and “retweets” of participants reinforced learning points. Journals’ account e.g., @anaes_journal (anesthesia journal’s handle) posts latest publications, events, clinical photographs/videos for retweeting or following. Society accounts’ (e.g., @ESRA_Society) publicize upcoming conferences, contents, workshops, and activities.
3. Tumblr: Microblogging site allowing posting of blogs (multimedia content) and following other blogs. Relevantly tagged posts (anesthesia, critical care, etc.) can be viewed. An interesting blog “Anaestricks” (www.anaestricks.tumblr.com) shares anesthetic tips. Other features include “Not Always Top 5” (hypothetical complicated case reports) and exam resources assisting Australian trainees.
4. LinkedIn: Professional networking site for associating colleagues, past colleagues, or professional relatives offering employment opportunities to individuals with certain skill sets. Conversely, employers can search potential candidates.
5. Google Plus: Creates online contacts based on professional preferences, interests, and events. “Circle” can be created for sharing contents and updates from members, “streamed.” Google plus shares photos, videos, latest publication reviews, and developments in anesthesia communities (e.g., #Anaesthesia-Google+, Rasimas-Google+ and EMCrit).
6. Research Gate: Exclusively, researcher dedicated platform offering data sharing, literature databases, peer liaison, and collaborative research. Particular interests or researchers can be “followed.” Blog feature offers reviews of peer-reviewed articles. Publication viewing, downloading, and citations are logged. “RG score” rates the academic reputation of researchers. Collective RG score from an institute thus reflects institutional standing.
7. Other similar resources: Though not strictly SNS, their applications are similar:
 - a. YouTube: Procedural videos related to airway, regional anesthesia, invasive monitoring, critical care, usage and functioning of equipment are abundantly available.
 - b. SlideShare: Diverse anesthesiology topics are hosted as slideshows. “Zipcast” feature with inbuilt chat function allows web-based broadcasting and conferencing.
 - c. Podcasts: Allow offline access to digitally prerecorded audio, video, PDF or ePub files, e.g., The World of Anesthesiology Podcast (www.anesthesiapodcast.com) from Vanderbilt University, Tennessee.
 - d. OpenAnesthesia: Founded in 2009, it is a comprehensive resource aiming for advancing medical education in anesthesia. Recent additions include OA self-study and keywords apps (free download) containing self-study questions with their answers and links.

Advantages and Prospects of Social Networking Sites

1. Easy access/operation appeals universally. Participation requires an internet connection and device which substantially reduces cost and time of information dissemination (pertinent in low-resource countries/remote locations). Since many scientific journals do not allow free access, SNS aids literature sharing.
2. Scientific ideas can be instantaneously promulgated to audiences varying in their positions, training, and

competencies. The need to physically attend conferences or continuous medical education programs for latest updates is negated. Online conferencing enables clinicians to converge on discussions thereby harnessing collective intelligence.

3. Management of endemic diseases (goiter, sickle cell disease, or thalassemia) can be eased by discussions with anesthesiologists who deal with them regularly, improving standards of care.
4. They serve as LaunchPads for new drugs, devices, and innovations notifying numerous anesthesiologists simultaneously. Nascent research ideas can be propagated or corroborated imparting them credence. Researchers can be made aware of ongoing or near completion projects avoiding redundant research and saving research funds.
5. Scientific standing of journals is increased. The existence of Twitter account is associated with higher impact factors. Future publications of journals can be revealed.^[4] Online journal clubs discuss articles and develop collaborations.^[5]
6. Conference organizers can publicize speakers and workshops. Delegates can plan trips, accommodation, and coordinate with colleagues. Questions can be posed to clarify contentious points. Delegates can participate simultaneously in parallel sessions.

Constraints and Hazards of Social Network Sites

1. Authenticity of available information is questionable. Information lacking validity cannot be cited/quoted in scientific platforms or papers. Official communications are improper because of confidentiality, access, and irregular visit issues.
2. Plagiarism threat looms large due to an open platform and minimal security. Open platforms lack standard regulatory bodies ensuring genuineness, accuracy, and overall quality.
3. Communications (usually typewritten) is not “real time.” Social elements of conferences such as social events, dinners, or recreation cannot be reproduced.
4. Broadcasting certain contents reflect poorly on individuals, institutes or medical profession.^[6] Unprofessional behavior (60% incidence) includes the use of profanity, racist language, depicting inappropriate sexual, and alcohol-related content.^[7] Since anesthesiologists care for patients when they are most vulnerable, a high sense of professionalism is expected. Although definition of “inappropriate” conduct is unclear, implicit agreement suggests that whatever is inappropriate for a physician to do in real life is prohibited online as well.

5. Patient’s confidentiality and privacy may be compromised. Privacy and confidentiality associated concerns of patients and colleagues should be addressed strictly.^[8]
6. Online contact with patients breaching doctor–patient relationship may be professionally inappropriate. A survey of residents and fellows revealed that 85% declined patients’ “friend” requests. Doctor–patient relationship may alter when patients know that their physician is on SNS.^[9]
7. Distractions/interruptions can lead to monitoring lapses precipitating critical events.
8. Professional reputation may suffer as recruiters use SNS for screening/monitoring potential employees. Passing unsubstantiated defamatory comments can be interpreted as libel.^[10] Organizations like British Medical Association and American Medical Council on Ethical and Judicial Affairs provide practical guidance on online conduct^[11,12] which anesthesiologists should be conversant with.

Conclusion

SNS cater to anesthesiologist differing in locations, interests, and skill levels. Thus, irrespective of academic inclinations or practices they have infinite possibilities of forging professional associations, updating clinical expertise, employment opportunities, and accessing quality research.

Concurrently, intrinsic vulnerabilities exist, therefore responsible use is advocated. Striking balance by judicious and conscientious application should be the universal endeavor.

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Conflicts of interest

There are no conflicts of interest.

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