COACTION

Social media policies at US medical schools

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Background/Purpose: Today's medical students are learning in a social media era in which patient
confidentiality is at risk yet schools' social media policies have not been elucidated. The purpose of this
study is to describe the presence of medical schools on top social media sites and to identify whether student
policies for these schools explicitly address social media use.
Method: Websites of all 132 accredited US medical schools were independently assessed by two investigators
for their presence (as of March 31, 2010) on the most common social networking and microblogging sites
(Facebook and Twitter) and their publicly available policies addressing online social networking. Key features
from these policies are described.
Results: 100% ($n = 132$) of US medical schools had websites and 95.45% (126/132) had any Facebook presence.
25.76% (34/132) had official medical school pages, 71.21% (94/132) had student groups, and 54.55% (72/132)
had alumni groups on Facebook. 10.6% of medical schools (14/132) had Twitter accounts. 128 of 132 medical
schools (96.97%) had student guidelines or policies publicly available online. 13 of these 128 schools (10.16%)
had guidelines/policies explicitly mentioning social media. 38.46% (5/13) of these guidelines included statements
that defined what is forbidden, inappropriate, or impermissible under any circumstances, or mentioned
strongly discouraged online behaviors. 53.85% (7/13) encouraged thoughtful and responsible social media use.
Conclusions: Medical schools and their students are using social media. Almost all US medical schools have a
Facebook presence, yet most do not have policies addressing student online social networking behavior. While
social media use rises, policy informing appropriate conduct in medical schools lags behind. Established policies
at some medical schools can provide a blueprint for others to adopt and adapt.

Keywords: *online*; *internet*; *social networking*; *professionalism policies*; *Web 2.0*

Today's medical students are learning in the context of social media, internet-based applications that are built on user-generated shared content. Many of these students are part of what has been labeled the Net Generation (1) and have made abundant use of social networking and mobile applications in their undergraduate years (2). The use of social media is rising: while only 8% of online American adults 18 years or older had used a social networking site in 2005, by late 2009, 46% were networking (3). Medical professionals have also begun blogging – that is, creating web-based logs to share information, provide commentary, reflect, and portray events, even with the associated risks of this type of social media (4).

On the most highly visited website and social networking site, Facebook (5), are such reputable people and institutions as the CDC (http://www.facebook.com/CDC) and former Surgeon General David Satcher (http://www.facebook.com/pages/David-Satcher/90584625813). Similarly, on Twitter (5), the most highly visited microblogging site where messages up to 140 characters long are shared between users, there are groups representing medical research and medical education such as The Association of American Medical Colleges

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(http://www.twitter.com/aamctoday) and the National Institutes of Health (http://www.twitter.com/Nihforhealth), as well as individuals, some of them identifying themselves as physicians.

Those responsible for educating the next (and net) generation of physicians are themselves learning about social media and how these new tools influence the ways their students communicate, share educational experiences, and learn collaboratively (6, 7). Medical students may be asked to blog for class assignments (8), and medical school course director's blogs are in use at some schools (6).

Yet that which is reflected in the mirror of social media online is not always clear or appropriate (9). One's professional image and personal image risk becoming blurred together. Online posting of unprofessional content by medical students has been reported and in some cases has resulted in expulsion (10). Many trainees allow public access to their personal informational profiles, which contain information that is not usually disclosed in a doctor-patient relationship (11). A breach of patient information and derogatory humor that is easily accessible online poses ethical challenges and raises serious concerns for medical professionalism (11–14).

Professionalism curricula abound in undergraduate medical education (15, 16), yet the way medical schools guide student conduct on social media through policies has not been described. Furthermore, the extent to which medical schools as institutions have entered the social media arena is not clear. The purpose of this study is to describe the presence of medical schools on the most commonly used social networking site (Facebook) and microblogging site (Twitter) and to identify whether the publicly available student policies for these schools explicitly address the use of social media.

Methods

Social media policies
Between February and March 2010, two investigators (GG and AS) assessed the home page assessed the home page websites of all US medical schools accredited by the Liaison Committee on Medical Education for professionalism policies that address online social networking. Medical schools' websites were searched using each site's internal search engine in order to access their student-related professionalism policies or student handbooks and assess them for the inclusion of guidance for students about social media use. Search terms included 'Facebook, Twitter, online, internet, computer, professional, professionalism, Facebook policy, social networking policy, social media policy, social media, and social network.' For policies in Portable Document Format (PDF), the Adobe search was used.

Each medical school student policy statement, handbook, and website were initially assessed independently by two investigators (GG and AS) for information pertinent to social media. All four investigators met after this initial assessment to refine the inclusion criteria to those statements explicitly mentioning social media or online social networking, excluding those solely mentioning computer use or internet use (without a specific mention of social media or social networking). All data were then re-reviewed independently by the same two investigators (GG and AS). Any discrepancies were resolved by a third investigator (TK).

Medical school presence on social media sites
In addition, we assessed each medical school for their online presence on two social media applications, Facebook (http://www.facebook.com) and Twitter (http://www.twitter.com) as of March 31, 2010. These sites were searched for each medical school by name and abbreviated names. Frequencies and descriptive statistics are presented.

Data collection from the Facebook site included the presence/absence of: (1) a current medical student group, (2) alumni group or association, and (3) medical school page. If a medical school page was present we further categorized it as the official page for the school, a page for the medical school library, or a page for the medical school admissions office. We also noted if the medical school page existed only as part of the larger health system or medical center page. We included groups or pages in existence on Facebook as of March 31, 2010 with the medical school's name or abbreviated name. We excluded 'community pages' that are pages dedicated to specific topics, institutions, or experiences generated by Facebook, beginning in April 2010. These community pages, which currently feature Wikipedia information, are currently in beta-testing.

Data collection from the Twitter site included the presence/absence of a Twitter account with a name or bio specifically indicating that the account was for the medical school, or with a Twitter account related to the medical school in the following ways: teaching hospital or medical center, medical school library, medical school admissions, medical school alumni magazine, or medical center jobs posting.

This study was approved as exempt by the Veterans Affairs Medical Center Institutional Review Board.

Results
Of 132 Liaison Committee on Medical Education (LCME) accredited United States medical schools at the time of this study, 100% had websites.

As of March 31, 2010, 95.45% (126/132) of medical schools had *any* presence on Facebook, including pages

for that medical school or current student or alumni groups from that medical school. Also, 71.21% (94/132) of medical schools had current student groups on Facebook and 54.55% (72/132) had alumni groups; 42.42% (56/132) had at least one Facebook page for the medical school. One-quarter of medical schools (25.76% or 34/132) had an official page created by the school, 10.6% (14/132) had a medical school library page, and only 2.27% (3/132) had a medical school admissions page. For seven schools (7/132 or 5.3%), the medical school page only existed as part of the larger health system or medical center page.

It was shown that 10.6% (14/132) of medical schools had Twitter accounts such that the name or bio on Twitter specifically indicated that the account was for the medical school. In addition to these 14 medical schools, an additional 31/132 (23.5%) had Twitter accounts related to the medical schools in the following ways: teaching hospital or medical center (21/132 or 15.9%), medical school library (6/132), medical school admissions (2/132), alumni magazine for the medical school (1/132), medical center jobs posting (1/132), and a student using the medical school's name as his/her individual Twitter account (1/132).

Of these 132 medical schools, 128 (97%) had student handbooks, guidelines, and/or policies that were publicly available online and accessible for review by our research team. Only 13 of the 128 medical schools (10.2%) had guidelines and/or policies that explicitly mentioned social media or online social networking. These guidelines took the form of policy statements, safety tips, and agreements on social media use. In Table 1, the website address, policy name, date (including all information available as to whether it was an updated policy or draft), and key features of each policy are presented.

The policy statements employed different strategies to address online behavior on social media, guiding their students to uphold standards of the medical profession. Of these policy/guidelines statements, 38.46% (5/13) defined what online behaviors are forbidden, inappropriate, or impermissible under any circumstances, or mentioned others that were strongly discouraged. Some 53.85% (7/13) mentioned the Health Insurance Portability and Accountability Act (HIPAA) or patient privacy. Many (53.85% or 7/13) took the approach of guiding students to think, to ask themselves how they want to be perceived publicly, and/or to be mindful of the permanency of posts and images projected, reminding students that they are medical professionals in whom the public places its trust. Of these, 69.23% (9/13) listed social media sites by name, such as Facebook, Twitter, Friendster, MySpace, YouTube, LinkedIn, Digg, and Delicious. Over one-third (5/13 or 38.46%) of school guidelines

statements offered a contact person/email for situations in which a student was unsure about how to conduct themselves online.

Discussion/Conclusions

Medical schools and the students they educate are making use of social media. Almost all US medical schools have a Facebook presence, yet the majority do not have professionalism policies that explicitly address online social networking behavior. Those schools that have policies are defining the balance between what are forbidden, discouraged, and appropriate social media behaviors, in order to help students navigate their online interactions. Social media are changing medicine (17), and our study supports the notion that while its use may be steadily rising, medical schools' guidelines and policies to inform appropriate conduct lags.

There are some limitations to our study. We only included those policies that were made available online and searchable from the medical school's website. However, we note that this is the same access the public would have if, for example, a patient or patient's family member wanted to see what guides medical students in their use of social media. We might not have been able to successfully locate a school's policy despite two authors independently using a rigorous search strategy. In addition, this is a rapidly changing field and it is possible that additional medical schools have created and posted policies since the time of our data abstraction. Other schools may be in the process of creating policies at this time, may not have posted their policies on the Internet, or may have their policies posted on an internal or password-protected network such as an Intranet. Finally, we were not able to report on how these policies were developed, with whose input, how they are being enforced, and how they are being received by students.

These early policies created by medical schools in the Web 2.0 era can provide a blueprint for other schools to adopt and adapt for use, in an effort to maintain medicine's social contract with society (18). These policies vary in the range of issues addressed and also in their general approach, from stringent prohibitions to reflective questions. We suggest that medical schools craft guidelines such that they are framed as part of the professional duties of future physicians. Medical schools should encourage their students to think and reflect; in guidelines for online behavior, students should be prompted to actively consider the words and images they are projecting and how they might be perceived and to consider who they are representing. We suggest, in policy development, medical schools include specific examples of what would and would not be considered online professional behavior. Providing contact information for students who require further guidance on this

Table 1. Medical schools policies addressing social media and their key features[a]

Medical school or center	Website address, all prefixed by http://	Title	Date	Key features
Ohio State University College of Medicine	medicine.osu.edu/ students/life/resources/ handbook/Documents/ 8%20Professionalism.pdf	Professionalism and the Internet	July 2006	Developed by student council Describes duty of future physicians to uphold standards of profession that extend beyond the classroom, including on the Internet. States it is not permissible under any circumstances to demean or degrade any individual associated with the College of Medicine on Internet resources. Breaches of professionalism include but not limited to sexism, racism, and libel. Lists examples of possible infractions, including but not limited to any inappropriate away messages or profiles on instant messenger services, any inappropriate postings on social networking sites, blogs, or public websites, and any inappropriate postings of pictures.
Oakland University William Beaumont School of Medicine	www2.oakland.edu/ audit/Policy890.doc	Use of University Information Technology Resources	June 2008 last update	Provides guidelines regarding the use of information technology resources including blogs, other online services, and digital images. Reminds users to use courtesy and respect and avoidance of harassment. Tolerates limited recreational game playing and web surfing, but not 'excessive' recreation. Has section on sanctions describing consequences and the range of disciplinary actions for first and minor incidents and subsequent and/or major violations for medical students.
Virginia Commonwealth University School of Medicine	www.medschool.vcu. edu/gme/manuals/ documents/VCUHS PolicySummary.doc	Confidentiality and Release of Patient Information	2009	States that cell phones, fax machines, and email should not be used to transmit confidential information and that extreme care must be taken not to disclose PHI[b] if these are used. Prohibits communication with patients through social networks States that staff members are responsible for reminding each other of confidentiality guidelines.
University of Chicago Pritzker School of Medicine	pritzker.bsd.uchicago. edu/current/students/ AcademicGuidelines.pdf	Digital Media Policy	2009–2010	States that videotaped encounters with students and standardized patients in any clinical skills or clerkship experience cannot be publicized on any personal website, media-share site, or social networking site. Also mentions that these videotaped encounters cannot be used in a student-run skit or performance.
University of North Dakota School of Medicine and Health Sciences	sos.und.edu/csl	Social Networking Sites	2009–2010	States that the university, faculty, and staff do not monitor online communities, but that any behavior violating the code of conduct that comes to a university official's attention will be treated as like any other violation. Does not forbid faculty, staff, and students from joining and participating in online communities as long as individuals are not acting as agents of the university. Encourages students to use privacy functions.

Table 1 (*Continued*)

Medical school or center	Website address, all prefixed by http://	Title	Date	Key features
Oregon Health and Science University	www.ohsu.edu/xd/about/ services/technology/ webstrategies/policies/ content/upload/ Social-Networking-Safety- TipsAugust09.pdf?WT _rank=1	Safety Tips for Using Social Networking Sites	July 6, 2009	Derived from University of California Santa Barbara Social Networking Guidelines Provides questions for students to ask themselves when using online social networks. For example, students are asked to consider if they would post this material on a roadside billboard or the exterior of their door. Asks if the image they are projecting is the one they want to project (to friends, faculty, advisors, interviewers, future employers, neighbors, family, parents).
Duke University Health System	medschool.duke.edu/ wysiwyg/downloads/ Duke_Confidentiality _Agreement_7-17-09.pdf	Duke Confidentiality Agreement	July 17, 2009	Policy includes a series of agreement statements regarding privacy and security, for example, 'I WILL NOT post or discuss any Duke information, including sensitive information on my personal social networking sites such as Facebook or Twitter.' Other 'agreement' statements include not taking any pictures of patients with cell phones; not posting sensitive information or patient pictures on Duke-sponsored social networking sites without appropriate patient authorization; only accessing information needed for one's job or service; agreeing not to access, show, tell, use, release, email, copy, give, sell, review, change, or dispose of confidential or proprietary information unless it is part of one's job at Duke. Affirms an understanding that Duke may take away or limit access at any time.
Rush University Medical Center	www.rushu.rush.edu search 'social networking' provides a link to PDF	Social Media Policy and Social Computing Policies	Draft September 10, 2009	Policies cover all publicly accessible communications via the Internet relating to Rush, including wikis; video-sharing sites, online social networks; social book-marking sites; online publishing including blogs, discussion forums, newsgroups, and e-mail distribution lists. Reminds that Rush relies on the trust and support of communities served States that personal communications about any Rush patient are always forbidden and may support grounds for immediate termination and legal action. Lists contact information to help determine material's appropriateness for social media site Should not let one's networking activity interfere with work commitments Reminds users they are personally responsible for the content they publish online. In social media forums, users should not reference Rush; identify patients or share PHI; use Rush's logo/trademarks or make endorsements without approval; use Rush's name or resources for political purposes; post Rush's confidential/ proprietary information; use ethnic slurs, racial epithets, personal insults, or obscenity; or engage in any offensive conduct. Users should ensure all communications in social media forums comply with Rush policies regarding privacy of student records; should respect copyright, trademarks, and intellectual property rights, should be aware

Table 1 (*Continued*)

Medical school or center	Website address, all prefixed by http://	Title	Date	Key features
				of their association with Rush; and should secure supervisor's permission in advance before administering an informal departmental group.
University of Florida College of Medicine	www.med.ufl.edu/oea/osa/pp_social_networks.shtml	Official Policy Regarding Use of Social Networking Sites	Updated October 21, 2009	Lists actions strictly forbidden and actions strongly discouraged Forbidden actions include posting PHI; reporting private academic information of another student or trainee; presenting self as an official representative or spokesperson for the university; representing self as another person, real or fictitious, as a means to circumvent these prohibitions; letting social networking interfere with official work commitments. Reminds users that removal of an individual's name is not proper de-identification Strongly discouraged actions include display of vulgar language; of language or photos that imply disrespect for any individual or group because of age, race, gender, ethnicity, or sexual orientation; of photos that may reasonably be interpreted as condoning irresponsible use of alcohol, substance abuse, or sexual promiscuity; and posting of potentially inflammatory or unflattering material on another's website
University of Rochester Medical Center	www.facebook.com/notes/university-of-rochester-medical-center/social-media-policy-for-urmc-employees/223741921344	Social Media Guidelines	December 17, 2009	Guidelines posted on Facebook for URMC employees Reminds users of a rule of thumb before engaging in blogs, Facebook, and other networking sites: that the same policies applying to other aspects of one's professional life also hold true in online forums. Lists principles to empower user to appropriately participate in social media communities.
West Virginia University Health Sciences Center	www.hsc.wvu.edu/its/Administration/PoliciesProcedures/SocialNetworkUse.aspx	Use of Social Networking Sites, Blogs, and Instant Messaging	2010	Provides examples of what should not be shared by social networking and instant messaging States that faculty, staff, residents, and students are not permitted to post confidential patient information, including PHI, educational records protected by FERPA, institutionally owned asset data, confidential, proprietary, or private information on any social networking sites, personal/business related blogs, and/or instant messaging service Highlights the permanency of published material on the Web and that social networking sites are increasingly being targeted by cyber-criminals.
Northwestern Feinberg School of Medicine	www.feinberg.northwestern.edu/communications/brand/social-media	Social Media Guidelines	Updated February 5, 2010	Provides guiding principles to raise awareness of current best practices and opportunities. Encourages school community to 'engage, build a network of like-minded scholars, stay connected, share information, and help us promote the medical school's goals and vision.'

Table 1 (Continued)

Medical school or center	Website address, all prefixed by http://	Title	Date	Key features
Brown University	www.brown.edu/cis/think	Think. Facebook: Your Space, Your Responsibility	No date	Reminds users that professional activities online and off-line reflect user and organization Guiding principles are to be transparent, be respectful, be generous, add value, aim for quality, use disclaimers, and be mindful of copyright law. Retrievable by searching 'Facebook policy' on the Brown Alpert Medical School site but originates in the undergraduate university. Encourages students to think about content they put online, to check privacy settings and consider openness and vulnerability, to avoid ruining their reputation, to stay safe, to think twice about what they post, and to do no harm.

a Listed chronologically by date or date updated.
b PHI, protected health information.

issue is helpful. We also recommend that all stakeholders should be involved in social media policy development, including students as well as patients and the public at large. Future research should focus on how such guidelines and policies are implemented and enforced by medical school faculty and administration. It will also be important to understand the extent to which students embrace such policies as helpful in guiding professional and responsible social media use.

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