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## Social Media in the Dental School Environment, Part A: Benefits, Challenges, and Recommendations for Use

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# Social Media in the Dental School Environment, Part A: Benefits, Challenges, and Recommendations for Use

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Abstract: Social media consist of powerful tools that impact not only communication but relationships among people, thus posing an inherent challenge to the traditional standards of who we are as dental educators and what we can expect of each other. This article examines how the world of social media has changed dental education. Its goal is to outline the complex issues that social media use presents for academic dental institutions and to examine these issues from personal, professional, and legal perspectives. After providing an update on social media, the article considers the advantages and risks associated with the use of social media at the interpersonal, professional, and institutional levels. Policies and legal issues of which academic dental institutions need to be aware from a compliance perspective are examined, along with considerations and resources needed to develop effective social media policies. The challenge facing dental educators is how to capitalize on the benefits that social media offer, while minimizing risks and complying with the various forms of legal constraint.

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ocial media have a major impact on personal and professional relationships, including the way we work. In this article, we examine how the world of social media has changed dental education.1 After discussing the impact of social media on communications in academic dental institutions, we will explore the legal and ethical considerations associated with building professional online relationships. The goal is to provide guidelines to encourage proper and effective social media use in dental education rather than enumerating abuses and proposing rules to stop them. This article is designed to help dental school administrators and educators develop guidelines on how students should interact with faculty, staff, patients, and peers when using digital tools. Our focus is not limited to the legal requirements of

the Health Insurance Portability and Accountability Act (HIPAA)<sup>2</sup> and other relevant laws and regulations that govern social media use, but rather concerns the appropriate use of these media and the ethical issues in dental education they trigger. A companion article proposes curricular topics and pedagogies related to e-professionalism that is designed to be useful for dental educators.<sup>3</sup>

### Update on Social Media Tools

Web 1.0, referring to World Wide Web pages that are linked to each other, is a communications and publication medium that permits control over vetted content.<sup>4</sup> It is characterized by the defined status of experts and specified boundaries that are governed by law and policies. Web 2.0 (applications like Twitter, Wikipedia, and Facebook) has a different set of operating principles: these include relationship, community, participation, access, spontaneity, and experience, making this medium difficult to regulate.<sup>4</sup> While this article explores the positive potential of Web 2.0 for changing dental education, it is important to note that there are also disadvantages related to the paradigm shift that occurred with the advent of Web 2.0. This shift from 1.0 to 2.0 changed the rules regarding the balance of power during transactions, and it is this shift that can allow problems to occur.

While this article focuses on the adoption of social media and its implications for dental education, this trend cannot be separated from today's ubiquitous access to mobile devices.5 By January 2014, 55% of U.S. adults owned smart phones, and mobile devices had overtaken personal computer usage for access to the Internet.<sup>6</sup> In addition, as of September 2012, 72% of Internet users indicated they had searched online for health information within the past year.<sup>7</sup> This is noteworthy because instruments of communication influence how and with whom people communicate, and the changes in communication associated with these statistics are notable. Hand-held mobile devices, for example, favor short messages, and texting does not lend itself to detail and refinement in messaging. Tweeting has made an art form out of clichés, and people often intentionally post communication when there is no expectation that recipients will respond immediately, thereby creating a "drive-by" style of communication.4 In ways like this, the use of social media and mobile devices has changed behavior: the world is no longer in the information age; it is in the attention age. Having and keeping someone's undivided attention is rapidly becoming a thing of the past. The partial attention promoted by social media leads to the existence of a state that Steven Levy describes this way: "constantly being accessible makes you inaccessible."8

The well-known Web 1.0 model is a product of the information age and is characterized by computerization, smart classrooms, simulation, interactive learning technology, haptics, electronic health record systems, and so on. Dental education has easily absorbed Web 1.0 because dental schools are in the information transmission business, and Web 1.0 is digital, fast, inexpensive, information-rich, and largely follows the broadcast paradigm of delivering content to an audience irrespective of time and place. Description

Social media, by contrast, have been defined as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, which allow the creation and exchange of usergenerated content." In contrast to a static ability to review posted materials, which could be much more widely distributed with the Internet, Web 2.0 allows *interactive* exchanges by users that alter the content in a collaborative and iterative manner working within a virtual community. Social media have been classified into five groups: 1) collaborative projects such as Wikipedia, 2) blogs or microblogs such as Twitter, 3) content communities such as YouTube, 4) social networking sites such as Facebook, and 5) virtual gaming or social worlds such as Second Life.<sup>11</sup>

It is misleading to think of Web 2.0 applications as pieces of technology or software. For instance, email can be used either as a one-directional broadcast device or as a conversation tool to engage individuals and groups. On the other hand, tweets (Twitter postings), which are often thought of as a model example of Web 2.0 communication, may be nothing more than personal posturing that is ignored by others. This is to say that Web 2.0 is defined functionally rather than structurally and is best thought of in terms of its effects on reshaping interpersonal relations and group identity, not in terms of programs and hardware.<sup>12</sup>

The use of social media, built on the foundation of Web 2.0, has changed the relationship between content producers and the public by not only allowing the audience to respond to broadcasts in "real time" but also by allowing every participant to also become a producer. These producers may lack the time, the expertise, or the motivation to scrutinize content for potential liabilities.<sup>13</sup> They may also be unable to assess content for accuracy and suitability for the intended audience prior to instantaneous worldwide broadcast. Thus, social media have resulted in a transition from a filtered-content style to an unfiltered, spontaneous, and potentially high-impact style. This transition, like any paradigm shift, has both disadvantages and advantages.

# Web 2.0's Effect on Dental Education

Web 2.0 has shaped interpersonal behavior, thus impacting the dental education environment. Following are some examples of how this works.

The student rumor mill. There are both formal and informal conversations about what is needed for a sound dental education. Faculty and administrators are accustomed to managing the former, while being aware of the existence of the latter.14 Social media provide students, staff, and patients an alternative: an informal information system that they lacked only a decade ago. This new system works in "real time," allowing decision making governed by the timely arrival of information. For example, a student who skips class can know what must be brought to the morning's lab practical before the faculty member concludes the lecture. Relying on an informal network is often more accurate than the formal system<sup>15</sup> because of the just-in-time, multiple, fragmented, overlapping, and self-correcting communication characteristics of Web 2.0.16

Student design of the educational program. Student involvement permits the rapid development of a usable body of information for those far beyond the borders of the school. Dental educators are on their way to being transformed from providers of information to trusted advisors who help students to "digest" the glut of information. The time has passed when a faculty member is considered to have the final word in more than a small area of specialization or when the clinic administration is the ultimate expert on the best way to manage all patients. Knowledge of how things work in dentistry and dental education is fast becoming a community enterprise. Membership in the community is not necessarily limited to a designated few but is shared by many individuals who can now access and operate on organized information. For example, schools such as the University of Texas Health Science Center at San Antonio School of Dentistry engage students in literature searches designed to identify elements of best practices and in identifying evidence-based guidelines that eventually become part of clinical protocol for the school.<sup>17</sup> This evidence-based resource is then made available online to assist faculty and students at other dental schools, 18 as well as practitioners, in their treatment planning decisions.

**Social norms.** The instantaneous availability of feedback to ongoing broadcasts or in-person presentations is rapidly modifying the style and content of the speaker or performer involved. For example, kick-'em-off TV shows such as *American Idol* invite feedback from the virtual community. News broadcasts invite real-time opinion polls on topics they are covering at the minute. Runners across the bottom of the TV screen display nearly simultane-

ous tweets commenting on the boy band playing on the morning show, even as the music is still being broadcast. Clickers in dental school classrooms are common and are used to elicit immediate feedback or assess understanding of educational concepts in real time. Surprisingly, the point is not to get a scientifically accurate estimate, appeal to public opinion, or determine the facts of the matter. Instead, we care where we fit in, and Web 2.0 provides an outlet for this desire to build, maintain, and strengthen relationships by anonymously calibrating our views with electronic surveys. <sup>16</sup> However, along with allowing validation of our ideas, there is also a dark side to anonymity in cyberspace. <sup>19</sup>

Crowd sourcing. James Surowiecki's book The Wisdom of Crowds is a classic collection of research and anecdotes advocating that the best guess at the truth would be revealed by the shared wisdom of the group, not a single expert.<sup>20</sup> It is plausible to consider dental students as consumers who engage in a free market. They make regular decisions about investing their time and talent to best take advantage of a complex set of opportunities and constraints that are too overwhelming and numerous to permit partaking in all of them. The fact that a segment of the curriculum may appear to be valuable from the perspective of individual faculty members does not alter the perceived importance of that segment by the "market of students" who assess its value. Research with the Iowa Electronic Markets (tippie.uiowa.edu/ iem/markets/) and the Hollywood Stock Exchange (www.hsx.com) that predicts which movies are likely to be financial successes demonstrate that amateurs with multiple independent information sources consistently outpredict acknowledged experts in a given field.<sup>21</sup> Practitioners also share information,<sup>22</sup> but students share information to a much greater extent: both groups often doing so independently of expert researchers and faculty members. The effectiveness of this type of networking is not a matter of who has the best information or the latest gadget; it is a matter of who has access to the best shared wisdom.

Some firms collectively assign responsibility to customers or to employees for product and process design.<sup>23</sup> The circumstances and the extent of this practice vary, but the idea is that those closest to the use of the product or service will have greater insight into how it should work than those who are more distant. Normally, the process begins with management announcing a problem or opportunity, including the outcome specifications, constraints, and resources it is willing to put into the project. The

process is outlined; and participants self-declare their interests and are given feedback, either in real time or in batched updates. Usually there is no reward other than personal satisfaction for contributions. This is precisely the case with respect to the development of Wikipedia or the widely used Unix-like computer operating system Linux. This practice has expanded into academia with Massive Open Online Courses (MOOCs). There is no reason why students could not be delegated responsibility for crowd-sourcing segments of the curriculum. Problem-based learning and group projects are gestures already headed in that direction.

Open source. No one owns the Web; no one has a copyright on Linux, for example. It is understood in the community of users that open source resources are available to all and for the common good. Anyone can suggest improvements in the common process. If the suggestions really are improvements, a panel of judges will authorize changes, possibly to the entire system. The innovator agrees to fully document the innovation and surrenders all rights to personal profit from the existing or modified system. Student clubs, outreach and mission programs, study groups, faculty collaborations, and virtually everything the American Dental Education Association (ADEA) does are examples of multiple user development of open content for use to all. The speed and inclusivity of Web 2.0 make such open sourcing easy.

**Fair use.** Is it permissible to scan a cartoon from The New Yorker and email it to a few friends? How about using the same cartoon in a lecture or perhaps in a textbook that is sold generating royalties for its authors? The boundary between what is private intellectual property and what can be shared is vague, and the widespread practice of sharing via the Internet has made the matter even more complicated. Fair use is a provision of copyright law that permits retransmission under limited circumstances. The doctrine is driven primarily by the use, not the content. Among the fair use criteria, the secondary, shared use should not be primarily commercial in purpose. It may depend on the nature of the work and the amount copied, and it should not reduce the commercial value of the copied work.<sup>24</sup> As another example of Web 2.0-inspired solutions, Creative Commons represents a new form of copyright license and its associated tools.<sup>25</sup> It attempts to strike a balance between the traditional "all rights reserved" licenses and the new spirit of widespread sharing. These tools give individual creators of work a standardized way to grant copyright permissions to their creative work.

### Advantages and Risks Associated with Social Media

Social media benefit many aspects of its users' personal and professional lives. Health care providers have generally embraced the emergence of this new technology.<sup>26</sup> However, separation of personal and professional online identities has become increasingly difficult, complicating the use of social media by health care providers.<sup>27</sup> When social media reach into the dental education domain, they potentially improve communication among students, staff, patients, and faculty, but also raise challenges.

### **Advantages of Social Media Use**

Dental education. Various social media tools have demonstrated their usefulness for teaching purposes. For example, faculty members are using Twitter as a way to engage large classes and solicit student feedback.<sup>28</sup> There is evidence that this practice may be an improvement on traditional teaching methods; for example, students who used Twitter in a large medical humanities course achieved significantly higher grades than those who had not participated.<sup>29</sup> The ease and ability of sharing and creating content can also encourage peer teaching and can connect students to their campuses and coursework during community-based clinical rotations.<sup>27</sup> Similarly, incorporating Twitter improved student communication skills in a medical humanities course<sup>30</sup> and promoted empathy and improved reflection in a medical school setting. 31,32 Studies have reported instances of dental students' posting YouTube videos with the intent of improving learning,<sup>27</sup> as well as the creation of wikis for educational use and a user-generated online encyclopedia to demonstrate the integration of basic and clinical sciences.<sup>33</sup> Other tools for dental education include peer-reviewed repositories, such as MedEd-PORTAL (www.mededportal.org), and applications like Quizdojo (quizdojo.com) and Quizlet (quizlet. com) that permit students to create and share test questions for self-assessment.

For dental schools, an active social media presence is increasingly seen as instrumental in attracting new students and allowing them to compare the features of different schools. Social media can also be used to inform and recruit patients, not only for clinical care but for online studies and clinical

trials. At the institutional level, schools and other organizations need to monitor social media "chatter," comprised of postings by patients, students, and others about their organization. Such monitoring can give schools a broader view of the school's impact on the community and help head off potential problems. Thus, it would be advantageous for schools to frequently conduct electronic searches of the organization's name and related keywords and to establish "Google Alerts" so they can respond in a timely way to inaccurate and/or potentially damaging information posted online.<sup>34-37</sup>

Patient empowerment through virtual communities. Increasingly, consumers who voice their opinions about products and services are informed by other consumers' ratings, and this process then guides their purchase decisions. This trend has expanded to health care in which patients try to identify trustworthy, credible information and health services through guidance from networked collaborative filtering processes. "Apomediation" is a new sociotechnological term describing this phenomenon.<sup>38</sup> Similarly, sites like patientslikeme.com contain information posted by patients and are designed to help others diagnosed with similar problems. These sites, which can include discussion of dental issues, allow patients to obtain a sense of self-empowerment by feeling they are informed and educated health care consumers. They also permit the building of a virtual community of peers in which all involved are coping with the same disease or condition.

Virtual communities have impacted dentistry in other ways. An unexpected advantage of these types of sites has been the accumulation of a large amount of data posted for research purposes that scholars can harvest for improving and standardizing therapies for patients' benefit. Another advantage is that when patients report their experiences on consumer sites, such as Angie's List (www.angieslist.com) and RateMDs (www.ratemds.com), their physicians, dentists, and other providers receive free marketing. The obvious disadvantage of this trend is the potential damage done by postings from dissatisfied, disgruntled, or dishonest patients.

**Improved marketing efforts to prospective patients.** Until 1977, advertisements of dental professional services were prohibited. Now, state dental boards regulate dental practices that advertise online, maintain websites, and post patient education videos on YouTube.<sup>39,40</sup> Dentists are learning how to use these new communication channels to educate their patients and market their practices more effectively.

"Search engine optimization" is a term used to describe the improvement of search results for marketing purposes. 40 For example, a practitioner's name will appear more often and earlier in search engine results if the professional has a larger online presence. Such exposure is desirable for attracting new patients. Conversely, not all social media attention is positive, and dentists need to respond professionally to negative online reviews and learn from patients' critique made possible through this new media. 41

Health care provider organizations have recognized the increasing use of social media and have started to utilize the power of the Internet to advance their missions. According to the Health Care Social Media List, 6,533 health-related organizations actively use social networking sites and maintain officially sponsored accounts as of June 2014. It has been reported that 52% of dental practices actively use social media for marketing and communication, with Facebook being the most common (91%) form used. This trend points to the need for practitioners to be conscious of the health information sources their patients use.

Overcoming professional isolation. Social media can promote professional networking<sup>43</sup> and facilitate the achievement of clinical excellence.<sup>44</sup> Virtual study clubs, continuing education (CE) videos on YouTube, and blogging<sup>45</sup> can give practitioners access to specialists in other areas who can provide advice related to clinical cases and procedures.<sup>46</sup> Dentaltown, a division of Farran Media, LLC (www. dentaltown.com/), and David Dodell's Internet Dental Forum (www.internetdentalforum.org/) are comprehensive sites that host dental forums, message boards, CE courses, and dental news. Dentists can discuss clinical topics, such as the oral-systemic disease connection and its impact on their practice.<sup>22</sup>

### Risks of Social Media Use

Some advocate that health care providers should never use social media for personal use due to the difficulty in demarcating it from professional use; others say that forgoing all personal online activity as the price to pay for being a health care provider seems unreasonable and impractical.<sup>47</sup> While it may

Abstaining from or embracing social media.

take time to arrive at a consensus of acceptable use and there will always be gray areas where judgments about appropriate use will differ, it is worth exploring new technology to benefit patients' health outcomes. Thus, rather than eliminating the use of a particular technology, it appears much more reasonable to understand the principles governing responsible use of the technology and use those principles to develop guidelines for helping providers safely negotiate their personal and professional roles.<sup>48</sup> The American Dental Association (ADA) has published two documents related to managing social media in a dental practice and as an employer.<sup>49,50</sup> In keeping with the ADA Code of Conduct, while health care providers must be mindful that "their patients and the public see them first and foremost as professionals," they clearly have a right to "private lives and relationships in which they can express themselves freely."<sup>51</sup> While challenging, this task is not impossible.

Rather than turning away from this new technology, dental professionals need to face the professional challenges of social media use because of widespread use by patients. This explosion in access to information, coupled with the parallel explosion in information itself, has led to more knowledgeable and inquisitive patients than providers encountered in the past. Not so many years ago, health care professionals commonly adopted a paternalistic paradigm that asserted the provider knew what was best for the patient<sup>52</sup> and, in the name of beneficence, would direct the patient's care. Today, health care professionals have rejected this paternalistic approach and instead embrace a shared decision making model. This paradigm shift has been driven by the evolving legal concept of informed consent, but was greatly accelerated by the emergence of the information age. Shared decision making models could be enhanced by the careful use of social media as our society moves more towards the "attention age." Improved communication can better inform patients, thus improving their ability to make better health care decisions. Some argue that such means of communication can also help undo the outdated medical god-complex by humanizing medicine. 53,54 It is hard to believe that such a complex, to the extent that it still exists, can survive the advent of social media.

**Professionalism and boundaries.** Health care professionals are trusted individuals who help patients make decisions that are crucial for their well-being.<sup>55</sup> They create fiduciary relationships with patients that differ from personal relationships because of the distinctive roles, purposes, obligations, and expectations the professional relationship creates.<sup>56-58</sup> This social contract between provider and patient also defines appropriate behaviors for a professional relationship: dentists generally limit their

social interactions to those that serve the patient's best interests. As an example of the different roles that oral health professionals and patients assume in the operatory, note that patients willingly disclose intimate and personal details of their lives during a dental interview, while dentists reveal little of their own history to the patient. This lack of social reciprocity would generally be inappropriate in any other setting, pointing to the trust and deep understanding patients and professionals have of the nature of these roles.<sup>59</sup>

Professional boundaries "define the limits of appropriate behavior by a professional towards . . . clients."57 When patients interact with professionals in a way more appropriate for a social than a professional relationship, a "boundary violation" occurs. Boundary violations can be troublesome because they have the potential to alter patients' expectations and can change the nature of the professional relationship, thus interfering with its effective functioning<sup>57,58</sup> by subtly changing the expectations associated with each role. Maintaining professional boundaries was easier and more common in the past, but such compartmentalization is difficult to achieve with social media because they do not clearly differentiate between private and public information. 60,61 Social media participation may allow patients to have access to information that is generally excluded from the patientprovider relationship, such as the provider's political and religious affiliations, personal interests, and details about family and finances, all of which might alter the nature of the relationship and negatively affect subsequent patient-provider interactions. 51,59,62,63 In addition, dentists may inadvertently learn things about patients online that patients have not directly disclosed and may not want them to know.<sup>59</sup> Students are socialized during their dental school years to the professional role, and part of that socialization process needs to involve negotiating subtle and often unspoken expectations associated with professional relationships and online communication.

These concerns also involve academic research activities. As faculty members engage in activities in the scholarship of teaching and learning, they should be aware of some special considerations when studying aspects of social media and patient care. Even though students' and patients' social media utterances are often freely available, Institutional Review Boards discourage the use of these resources without prior consent. An ongoing debate tries to determine how informed consent should be structured in the new medium of social media <sup>64</sup>

# Policy and Legal Framework

It is critical to recognize that there are federal and state laws that impact the use of social media. Users of social media frequently cite the First and Fourth Amendments of the U.S. Constitution to support a right of free expression and the belief that social media postings fall within these federally guaranteed privacy protections.51,65 There is a misconception that these protections apply consistently at all times. Although social media expressions are a form of communication and, for the most part, protected speech, freedom to communicate may not apply if what is said or written suggests harm or incites violence, such as making a threat to cause significant bodily harm. A 2012 court decision in Minnesota concerned a Facebook posting by a mortuary science student in which she threatened to act aggressively by using a long hollow needle, called a trocar. 66 This posting triggered disciplinary action against the student based on the expectation of professional conduct for enrolled students outlined in the University of Minnesota student handbook. The Minnesota Supreme Court supported the university's disciplinary actions, noting that the student's postings were disruptive and, more importantly, were not in compliance with the institution's student handbook guidelines. Thus, based on the professional nature of the educational program, the student's argument about protected speech was not successful.

The Fourth Amendment addresses search and seizure: "Individuals are protected from illegal search and seizure and guaranteed due process unless information is found in plain view."67 Arguably, posting a message on a forum is considered public, as the nature of the medium can be considered in "plain view." By posting, individuals are "opening their doors," allowing others to view the information, and consequently are not protected by the Fourth Amendment. Therefore, postings may be subject to scrutiny if the content violates federal or state laws. Moreover, depending on the language used, published communication can be viewed as discriminatory, which violates federal and state civil rights laws and statutes. The same would apply if the negative posting targeted a protected class, such as those with disabilities. Applicable laws relating to illegal discrimination could include Title VII of the Civil Rights Act of 1964<sup>68</sup> or the Americans with Disabilities Act. 69,70 In addition, states may have laws that protect citizens from discrimination. It should also be noted that any discussion of patient health information or status via social media may be viewed as a violation of HIPAA.<sup>2</sup> While a student or faculty member's posting may have been intended to share an experience, it could easily be interpreted as racial or ethnic harassment or a breach of patient confidentiality. For example, a student who has a challenging day at a dental outreach clinic and posts a message to classmates using derogatory or mocking terms about patients or employees there may find himself or herself in violation of school policy, and such behavior may also cause liability for the school. Even if the clinic site is unnamed, it may be easy to identify it as a dental clinic in a specific area of the state that is easily connected to the dental school.<sup>71</sup> An individual or community may be offended by the commentary and, depending on the nature of the content, may seek legal action. There are thresholds that, when overstepped, lead to negative outcomes, harm reputations, and, depending on the situation, may subject individuals and/or institutions to litigation.

Other legal claims can be made against users of social media as a violation of tort law. A tort is a civil harm that results in a loss or injury. Examples of tort violations attributed to social media include intentional infliction of emotional distress or allegation of defamation if a person's reputation is harmed due to an untrue statement that is written or spoken. Fraud can occur if someone deliberately deceives another and obtains unfair or unlawful gain. Similarly, an individual who uses someone else's material and attributes it as their own may be subject to allegations of copyright violation.

On the other side of the issue, federal agencies and entities, such as the National Labor Relations Board, continue to review social media use and develop policies and protocols that protect employees' free speech and privacy rights. Recently, states have addressed social media use by providing privacy protections for their citizens that go beyond the requirements outlined by federal regulations. A growing number of states have passed legislation that prohibits employers from requesting or requiring access to a job applicant's social networking accounts. Policies that provide guidance to dental students, faculty, and staff should be incorporated into appropriate dental school publications, websites, and handbooks and should be in harmony with the host institution's social media policies. This approach informs students and employees about the boundaries defined by the institution to protect both the individual and the institution.

Any discussion of free speech should include the concept of academic freedom. The general use of electronic communication channels as related to academic freedom was recently addressed by the American Association of University Professors (AAUP) in a report approved and adopted by AAUP's council. The report stated that "academic freedom, free inquiry, and freedom of expression within the academic community may be limited to no greater extent in electronic format than they are in print, save for the most unusual situation where the very nature of the medium itself might warrant unusual restrictions," emphasizing that "electronic communications are too important for the maintenance and protection of academic freedom to be left entirely to institutional technology offices."72 In addition, the report stated, "faculty members must participate, preferably through representative institutions of shared governance, in the formulation and implementation of policies governing electronic-communications technologies." These statements affirm the importance of this new technology and invite faculty members to shape policy to advance academic use.

### **Levels of Social Media Use**

When determining appropriate use of social media, four levels of relationship between the poster and his or her recipient should be distinguished. These are the personal relationship, the interpersonal relationship, the professional relationship, and the institutional relationship in which a person can be understood as speaking on behalf of a group or organization.

Personal use of social media. This use has vastly enhanced the information retrieval capacity of individual users, potentially elevating everyone to the level of an information "expert." Two ethical issues are associated with the individual discovery of information. First, uncovering information others expect not to have revealed is a breach of privacy. While this has always been so, electronic eavesdropping is as easy and powerful as it is wrong. Second, there is some controversy about information that can be discovered during hiring or accepting students. Some believe that the institution is blameworthy for not having discovered relevant information, while others argue that access to social media accounts should be off limits for hiring and admissions decisions.<sup>73</sup>

**Interpersonal use of social media.** Confidentiality refers to reasonable expectations that

information will not be shared with others to the detriment of the person whose information is shared nor used for purposes other than those for which it was given. When protected information is disclosed for personal gain, there is a breach of confidentiality. If such disclosure is accidental and due to negligence in reasonably expected practice, a breach in security has occurred. Consequences for health care providers can range from embarrassing media exposure, as in the recent case of a dental school, 74 to legally actionable liability, as in litigation to settle allegations of HIPAA violations. 75

Privacy operates in a different way when concerned with interpersonal interactions. We have a right to some level of privacy, such as freedom from unwanted attention. At one extreme, sexual harassment via the Internet is illegal. At the other end of the spectrum, courts have recognized that advertising is simultaneously annoying and a social benefit since it alerts people to opportunities of which they were unaware.

Professional use of social media. If professionals speak as professionals rather than individuals, the same message takes on a different status. During personal, face-to-face communication, almost no one would take seriously a dentist who claimed to provide investment advice, nor would they take seriously an investment banker's oral health diagnosis. However, if the same statements are made by those professionals within the realm of their special training, the comments made by the dentist with respect to oral health are elevated in status because only dentists are licensed to diagnose oral health conditions. Because electronic communication can obscure the source and circumstances surrounding communication, special care is necessary in distinguishing personal from professional communication. Just as dental professionals use a different language and avoid certain topics when wearing a white coat, they are well served to ensure all potential audiences understand when they speak personally instead of expressing professional views. This can be easily achieved by using separate accounts, different media channels, or separate social media services. However, dentists who speak on professional channels are ethically bound to accept the norms of the entire profession when they do so. This tenet is stated in Section C.4 of the ADA Code of Professional Conduct.76

**Speaking for others.** Beyond restrictions that come with electronic communication as a member of a profession, additional restrictions are associated with representing a group or an organization

as its official or unofficial agent. Further, there are different standards attached to a message depending on whether a dentist is an ADA member or an ADA officer. Most large companies and virtually all government organizations, schools, and professional organizations now have written standards for using electronic communication that mandate a clear differentiation between speaking privately and speaking on behalf of the organization. Students need to be taught to make these distinctions.

# Social Media Policy Development

An academic dental institution may have professional codes that can be enhanced by "developing an appropriate 'standard of care' involving digital interactions."77 However, before starting to draft any policy, current student honor codes need to be examined to determine if there is a need to address e-professionalism issues on the school level.<sup>78</sup> Further, policies must protect employee privacy rights regarding the institution's access and monitoring of employee social media use outside the institution. It should be clear to all employees and students that all communication, including personal and private or password-protected institutional email, Internet or other computer file, and telephone or pager use, is subject to access and monitoring. This also includes communication conducted using equipment provided by the school and utilizing email services or other servers of the institution when social media use occurs in the workplace or elsewhere at any time.

An institutional social media policy provides guidance to the community of faculty, students, and staff. In developing its guidelines, the principles of privacy, authenticity, confidentiality, and accountability are important, including consideration of confidentiality protections under HIPAA and the Family Educational Rights and Privacy Act (FERPA). Institutional stakeholders can provide valuable input and should be consulted when developing the policy. These include legal counsel, who are familiar with federal and state laws; marketing and public relations staff; personnel familiar with copyright and intellectual property policies; student affairs; the registrar's office; the institution's compliance office; academic affairs; and students.

An expandable list of specific topics that should be addressed is shown in Table 1. In addition to those

basic elements, students in a professional program require more specific recommendations. The list of suggestions in Table 2 is based on themes in the policy on social media of the American Medical Association (AMA).<sup>80</sup> In addition to issuing a clear policy, the policy should be widely distributed and should be enforced according to the institution's established procedure.<sup>26</sup> All members of the student body, faculty, staff, and administrators should be educated about ethical and legal issues surrounding social media. The oath of the dental profession can be used to remind dental students of their obligations.

All members of an institution need to be aware of their institution's expectations regarding social media use and may require education about the policy. They should be informed of the right of the institution to monitor email and other forms of electronic communication. All members of the institutional community should be provided with specific examples to help them distinguish between appropriate and inappropriate use of social media. For example, unprofessional uses of social media that would violate the institution's policy include cyberbullying, cyberstalking, harassment, breach of confidentiality (unauthorized patient or student information), inappropriate or troubling photographs, sharing of gossip or rumors, criminal activity such as theft or fraud, misuse of university-provided technology, discrimination, defamation, and cheating.

With regard to admissions or hiring procedures, institutions need to decide and announce to their applicants if online searches are performed on applicants as part of the admissions process. 73 Similarly, the institution needs to decide if applicants should be given notice of criteria for rejection related to inappropriate or unprofessional use of social media. There appear to be conflicting views on this issue. Some point out that googling job candidates or student applicants can be problematic because it can produce information that is unreliable or can provide the search committee with information it cannot legally use.<sup>73</sup> On the other hand, a positive online profile can confirm information the candidate presents in the interview and demonstrates proper management of the applicant's online profile.81

Social media are dynamic and changing, and institutions need to frequently revisit their policies. Some useful resources for administrators to consult when developing policy include recommendations published by the AMA's Council on Ethical and Judicial Affairs (CEJA).<sup>51</sup> the ADA's documents related

#### Table 1. Topics to be included in an academic dental institution's social media policy

- 1. **Liability.** Individuals are legally responsible for what is posted. One should be attentive to content conforming to laws relating to copyright, defamation, fraud, misrepresentation, criminal activity, and privacy.
- 2. Confidentiality. A number of laws such as HIPAA and FERPA speak to confidentiality protections for patients and students. Awareness and conformity to the laws, as well as sound ethical judgment when posting, are required.
- 3. **Privacy.** Guidelines should indicate that there should be no discussion involving named or identifiable individuals without their consent. There should be no posting of images, audio, or video without an individual's consent. Moreover, individuals should be warned that attempts to de-identify a case can be foiled if the details disclosed on social media can be pieced together by the reader to identify the individual described in the post. It is the social media user's responsibility to anticipate and avoid these inadvertent violations of privacy.
- **Logo and branding.** Set clear direction as to what the institutional policy is and the specific office to contact for additional information or guidance.
- **Transparency.** Language in the message that indicates a university account does not suggest endorsement by the institution. The use of a disclaimer statement may add clarity to the message. At the same time, individuals must make it clear when they are expressing the opinions of the institution versus their own opinions.
- **6. Be constructive in comments and suggestions.** If there is a disagreement, recognize that commentary is appropriate, but language that could be interpreted as causing harm should never be used. Recognize that words may be viewed as discriminatory by a reader, even if the author's intent was different.
- 7. No stalking, flaming, or bullying. Abusive language, behavior, and content are never appropriate in any context.
- 8. **Respect.** The tone of message, language, humor, and other areas where the intended message could be misperceived as discriminatory, abusive, or demeaning should be avoided.

#### Table 2. Elements to be included in social media education for students in a professional program

- 1. Awareness of standards for patient privacy and confidentiality requirements. Provide reminders about sharing patient information, photographs or descriptions, and conversations in public places regarding patients.
- 2. Use of privacy settings to safeguard personal information and content. The focus is to maintain an appropriate professional relationship. Privacy settings protect the student by keeping patients from learning too much information about their student providers or allowing the patient from becoming too involved with the student in a non-professional relationship. This helps avoid boundary violations and, in the extreme case, can prevent stalking or other aggressive behavior.
- 3. Maintaining appropriate boundaries with patients. There may be specific consequences for the failure to maintain appropriate boundaries with patients. If the institution decides that social media interaction with patients is permissible, encouraging students to separate personal and professional content online would be important guidance to offer
- **4. A responsibility to provide feedback** to peers if unprofessional or inappropriate content posted online is noticed by a member of the institution.
- 5. Recognition that content of online postings may impact a professional's reputation with one's colleagues, patients, faculty, and staff. Providing specific examples of information that can be damaging within the policy would be helpful.

Source: Adapted from American Medical Association. Opinion 9.124: professionalism in the use of social media. AMA code of medical ethics, 2015. At: www.ama-assn.org/ama/pub/physician-resources/medical-ethics/code-medical-ethics/opinion9124.page. Accessed 19 June 2015.

to managing social media in a dental practice, 49-51 Thompson and Black's article on the CEJA recommendations, 82 and Junco's recommendations about specific social media policy criteria. 83 Boudreaux's comprehensive public database of institutional policies will provide numerous examples of social media policies for various types of institutions. 84 Finally, Drake's article on FERPA-compliant use of social media addresses some of the special social media concerns present in educational settings. 85

### **Conclusion**

Social media have been called a social-cultural agent of change that democratizes information and impacts the provider-patient interaction. <sup>86</sup> As social media and other electronic communication channels emerge and rapidly proliferate, the number and type of incidents in which one party feels damaged by what others do online are certain to multiply. While this change presents new threats to professional-

ism, such as problems with miscommunication and boundary violations, we support the view that fear of the unknown should not be a barrier to the responsible use of social media by health care professionals.<sup>77</sup> Social media represent the development of a new form of professionalism that must be continuously enhanced by developing one's skills while carefully monitoring for error.<sup>60</sup>

While we stated from the outset that this article is not a list of dos and don'ts, we conclude that all stakeholders need to acknowledge that "private matters are private, but behavior that affects others is not private."87 The public nature of social media presents multifaceted challenges that must be accounted for in practice and in the education of new professionals. As some of the suggestions presented here may appear to contradict others, harmonization can be found in the overarching principle that when conflict between interpersonal and professional uses of social media arises, professional standards should take precedence. If there is a conflict between what is expected and prohibited for an individual professional and that same professional as a member of an organization, the group norms should prevail.

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#### REFERENCES

- 1. Chambers DW. Position paper on digital communication in dentistry. J Am Coll Dent 2012;79(4):19-30.
- Health Insurance Portability and Accountability Act of 1996, Pub. L. 104-191, 110 Stat. 1936.
- 3. Spallek H, Turner SP, Donate-Bartfield E, et al. Social media in the dental school environment, part B: curricular considerations. J Dent Educ 2015;79(10):1153-66.

- Cormode G, Krishnamurthy B. Key differences between Web 1.0 and Web 2.0. First Monday 2008. At: http://journals.uic.edu/ojs/index.php/fm/article/view/2125/1972. Accessed 14 June 2015.
- Daly J. 13 impressive statistics about mobile device use. EdTech 2013. At: www.edtechmagazine.com/higher/ article/2013/03/13-impressive-statistics-about-mobiledevice-use. Accessed 15 Dec. 2014.
- O'Toole J. Mobile apps overtake PC Internet usage in U.S. CNNMoney 2014. At: http://money.cnn.com/2014/02/28/ technology/mobile/mobile-apps-internet/. Accessed 26 Dec. 2014.
- Pew Reseach Center. Health fact sheet. 2013. At: www. pewinternet.org/fact-sheets/health-fact-sheet/. Accessed 24 July 2014.
- 8. Levy S. (Some) attention must be paid! Carrying a Black-Berry is admitting that your commitment to your current activity is only partial. Newsweek, March 27, 2006:16.
- E-learning with web 1.0. 2015. At: https://e-language. wikispaces.com/web1.0. Accessed 16 June 2015.
- Davis K, Katz SL, Santo R, James C. Fostering crossgenerational dialogues about the ethics of online life. J Media Lit Educ 2010;2(2):124-50.
- Kaplan AM, Haenlein M. Users of the world, unite! The challenges and opportunities of social media. Bus Horizons 2010;53(1):59-68.
- Fuchs C, Hofkirchner W, Schafranek M, et al. Theoretical foundations of the web: cognition, communication, and cooperation—towards an understanding of web 1.0, 2.0, 3.0. Future Internet 2010;2(1):41-59.
- Jenkins H. Convergence culture. Rev. ed. New York: NYU Press, 2008.
- 14. Masella RS. The hidden curriculum: value added in dental education. J Dent Educ 2006;70(3):279-83.
- 15. Kraut RE, Fish RS, Root RW, Chalfonte BL. Informal communication in organizations: form, function, and technology. In: Oskamp S, Spacapan S, eds. People's reactions to technology in factories, offices, and aerospace. Beverly Hills, CA: Sage, 1990:145-99.
- 16. Cummings JN, Butler B, Kraut R. The quality of online social relationships. Commun ACM 2002;45(7):103-8.
- 17. Rugh JD, Sever N, Glass BJ, Matteson SR. Transferring evidence-based information from dental school to practitioners: a pilot "academic detailing" program involving dental students. J Dent Educ 2011;75(10):1316-22.
- University of Texas Health Science Center at San Antonio School of Dentistry. Critically appraised topics. At: https:// cats.uthscsa.edu/. Accessed 20 Jan. 2015.
- Wayne T. Clicking their way to outrage: on social media, some are susceptible to Internet outrage. New York Times, July 6, 2014. At: www.nytimes.com/2014/07/06/fashion/social-media-some-susceptible-to-internet-outrage. html? r=0. Accessed 3 Mar. 2015.
- Surowiecki J. The wisdom of crowds. New York: Doubleday, 2004.
- Forsythe R, Nelson F, Neumann GR, Wright J. Anatomy of an experimental political stock market. Am Econ Rev 1992;82(5):1142-61.
- 22. Song M, O'Donnell JA, Bekhuis T, Spallek H. Are dentists interested in the oral-systemic disease connection? A qualitative study of an online community of 450 practitioners. BMC Oral Health 2013;13(63):1-11.

- Tapscott D, Williams AD. Wikinomics: how mass collaboration changes everything. New York: Portfolio, 2006.
- Spallek H, Schleyer TK. Educational implications for copyright in a digital world. J Dent Educ 1999;63(9): 673-81.
- About the licenses. Creative Commons. At: https://creativecommons.org/licenses/. Accessed 20 Jan. 2015.
- Henry RK, Molnar A, Henry JC. A survey of US dental practices' use of social media. J Contemp Dent Pract 2012;13(2):137-41.
- McAndrew M, Johnston AE. The role of social media in dental education. J Dent Educ 2012;76(11):1474-81.
- 28. Arnett MR, Loewen JM, Romito LM. Use of social media by dental educators. J Dent Educ 2013;77(11):1402-12.
- Junco R, Heiberger G, Loken E. The effect of Twitter on college student engagement and grades. J Comput Assist Learn 2011;27(2):119-32.
- George DR, Dellasega C. Use of social media in graduate-level medical humanities education: two pilot studies from Penn State College of Medicine. Med Teach 2011;33(8):429-34.
- 31. Rosenthal S, Howard B, Schlussel YR, et al. Humanism at heart: preserving empathy in third-year medical students. Acad Med 2011;86(3):350-8.
- Fischer MA, Haley HL, Saarinen CL, Chretien KC. Comparison of blogged and written reflections in two medicine clerkships. Med Educ 2011;45(2):166-75.
- Philip CT, Unruh KP, Lachman N, Pawlina W. An explorative learning approach to teaching clinical anatomy using student generated content. Anat Sci Educ 2008;1(3): 106-10.
- 34. Ramo DE, Prochaska JJ. Broad reach and targeted recruitment using Facebook for an online survey of young adult substance use. J Med Internet Res 2012;14(1):e28.
- Morgan AJ, Jorm AF, Mackinnon AJ. Internet-based recruitment to a depression prevention intervention: lessons from the Mood Memos study. J Med Internet Res 2013;15(2):e31.
- 36. Kapp JM, Peters C, Oliver DP. Research recruitment using Facebook advertising: big potential, big challenges. J Cancer Educ 2013;28(1):134-7.
- Donahue M. Patient recruitment via social media: lessons learned. Pharmaceutical Executive 2012. At: http://blog. pharmexec.com/2012/02/13/patient-recruitment-viasocial-media-lessons-learned/. Accessed 20 Apr. 2015.
- 38. Eysenbach G. Medicine 2.0: social networking, collaboration, participation, apomediation, and openness. J Med Internet Res 2008;10(3):e22.
- Giles J. Ethical advertising in dentistry. Mouthing Off, American Student Dental Association, 2013. At: www. asdablog.com/ethical-advertising-in-dentistry/. Accessed 6 July 2014.
- Shuman L, Friedman DP. Social media marketing: effective strategies to accelerate dental practice growth. At: www.dentaleconomics.com/articles/print/volume-103/issue-9/features/social-media-marketing-effective-strategies-to-accelerate-dental-practice-growth.html. Accessed 15 Dec. 2014.
- Segal J. The right way to fight bad online reviews. Medscape 2014. At: www.medscape.com/viewarticle/835077. Accessed 19 Apr. 2015.

- Health care social media list. Social Media Health Network. At: http://network.socialmedia.mayoclinic.org/hcsml-grid/. Accessed 24 July 2014.
- 43. Giordano C, Giordano C. Health professions students' use of social media. J Allied Health 2011;40(2):78-81.
- 44. Batt-Rawden S, Flickinger T, Weiner J, et al. The role of social media in clinical excellence. Clin Teach 2014;11(4):264-9.
- 45. Lowney AC, O'Brien T. The landscape of blogging in palliative care. Palliat Med 2012;26(6):858-9.
- Farnan JM, Arora VM. Blurring boundaries and online opportunities. J Clin Ethics 2011;22(2):1836.
- 47. Ofri D. Should your doctor be on Facebook? New York Times, April 28, 2011.
- Standards for the dental team. London: General Dental Council, 2013.
- 49. Council on Communications, Social and Digital Media Subcommittee, American Dental Association. The ADA practical guide to social media planning. Chicago: American Dental Association, 2011.
- Division of Legal Affairs, American Dental Association.
  Social media and employment guide. Chicago: American Dental Association, 2013.
- Shore R, Halsey J, Shah K, et al. Report of the AMA Council on Ethical and Judicial Affairs: professionalism in the use of social media. J Clin Ethics 2011;22(2):165-72.
- Weinstein B. Dental ethics. Philadelphia: Lea & Febiger, 1993
- Cunningham A. Social media and medical professionalism. Med Educ 2014;48(2):110-2.
- McCartney M. How much of a social media profile can doctors have? BMJ 2012;344:e440.
- 55. Chambers DW. The professions. J Am Coll Dent 2004;71(4):57-64.
- 56. Kitchener KS. Dual role relationships: what makes them so problematic? J Cons Dev 1988;67(4):217-21.
- 57. National Center for Ethics in Health Care, Veterans Health Administration, Department of Veterans Affairs. Ethical boundaries in the patient-clinician relationship. Washington, DC: Department of Veterans Affairs, 2003.
- 58. Donate-Bartfield E, D'Angelo D. The ethical complexities of dual relationships in dentistry. J Am Coll Dent 2000;67(2):42-6.
- 59. Bosslet GT. Commentary: the good, the bad, and the ugly of social media. Acad Emerg Med 2011;18(11):1221-2.
- MacDonald J, Sohn S, Ellis P. Privacy, professionalism, and Facebook: a dilemma for young doctors. Med Educ 2010;44(8):805-13.
- 61. Gorrindo T, Groves JE. Medical professionalism: a tale of two doctors. J Clin Ethics 2011;22(2):176-8.
- Mostaghimi A, Crotty BH. Professionalism in the digital age. Ann Intern Med 2011;154(8):560-2.
- 63. Taylor L, McMinn MR, Bufford RK, Chang KBT. Psychologists' attitudes and ethical concerns regarding the use of social networking web sites. Prof Psychol Res Pr 2010;41(2):153-9.
- 64. Firestorm erupts over Facebook study's social media manipulation. IRB Advisor 2014;14(9):97-108.
- 65. Chretien KC, Greysen SR, Chretien JP, Kind T. Online posting of unprofessional content by medical students. JAMA 2009;302(12):1309-15.

- Tatro v. University of Minnesota, Case No. A10-1440 (MN S.Ct., Jun. 20, 2012).
- 67. Waring RL, Buchanan FR. Social networking web sites: the legal and ethical aspects of pre-employment screening and employee surveillance. J Human Resources 2010;4(2):14-23.
- 68. Civil Rights Act of 1964, Pub. L. 88-352, 78 Stat. 241.
- Americans with Disabilities Act of 1990, 42 U.S. Code § 12101-12213 (2000).
- Americans with Disabilities Amendments Act of 2008, Pub. L. 110-325.
- Roucka TM, Donate-Bartfield E, Zarkowski P. In social media age, watch what you say. Gen Dent 2014;62(1): 19-21.
- Subcommitte of Committee A on Academic Freedom and Tenure. Academic freedom and electronic communications. Washington, DC: American Association of University Professors, 2014.
- June AW. Google-stalking job candidates: tempting but risky. Chron Higher Educ, 2015. At: http://chronicle.com/ article/Google-Stalking-Job/149193. Accessed 20 Apr. 2015.
- 74. Vijayan J. Data pain: University of Florida warns 333,000 dental school patients of breach. Computer World 2008. At: www.computerworld.com/article/2534234/cyber-crime-hacking/data-pain--university-of-florida-warns-333-000-dental-school-patients-of-breach.html. Accessed 22 Jan. 2015.
- 75. Plamer C. Data breach leads to HIPAA settlements. ADA News 2014. At: www.ada.org/en/publications/ada-news/2014-archive/may/data-breach-leads-to-hipaa-settlements. Accessed 3 Apr. 2015.
- American Dental Association Council on Ethics, Bylaws, and Judicial Affairs. Principles of ethics and code of professional conduct. Chicago: American Dental Association, 2012.

- 77. Grajales FJ, Sheps S, Ho K, et al. Social media: a review and tutorial of applications in medicine and health care. J Med Internet Res 2014;16(2):e13.
- Cain J, Fink JL. Legal and ethical issues regarding social media and pharmacy education. Am J Pharm Educ 2010;74(10):184.
- Family Educational Rights and Privacy Act of 1974, 20 U.S.C. §1232g; 34 CFR Part 99.
- American Medical Association. Opinion 9.124: professionalism in the use of social media. AMA code of medical ethics, 2015. At: www.ama-assn.org/ama/pub/physician-resources/medical-ethics/code-medical-ethics/opinion9124.page. Accessed 19 June 2015.
- Lagu T, Greysen SR. Physician, monitor thyself: professionalism and accountability in the use of social media. J Clin Ethics 2011;22(2):187-90.
- Thompson LA, Black EW. Nonclinical use of online social networking sites: new and old challenges to medical professionalism. J Clin Ethics 2011;22(2):179-82.
- 83. Junco R. The need for student social media policies. Educause Rev, 2011. At: www.educause.edu/ero/article/need-student-social-media-policies. Accessed 27 June 2014.
- 84. Boudreaux C. Social media policy database. Social Media Governance. At: http://socialmediagovernance.com/policies/. Accessed 15 July 2014.
- Drake PD. Is your use of social media FERPA-compliant?
  Educause Rev, 2014. At: www.educause.edu/ero/article/your-use-social-media-ferpa-compliant. Accessed 20 Apr. 2015
- Quist N. Social media and interpersonal relationships: for better or worse? J Clin Ethics 2011;22(2):191-3.
- 87. Chambers DW. May I borrow your reputation? [Editorial]. J Am Coll Dent 2013;80(2):2-3.