



Social Media in Dermatology: Moving to Web 2.0

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Patient use of social media platforms for accessing medical information has accelerated in parallel with overall use of the Internet. Dermatologists must keep pace with our patients' use of these media through either passive or active means are outlined in detail for 4 specific social media outlets. A 5-step plan for active engagement in social media applications is presented. Implications for medical professionalism, Health Insurance Portability and Accountability Act compliance, and crisis management are discussed. Semin Cutan Med Surg 31:168-173 © 2012 Published by Elsevier Inc.

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Datients are increasingly using the Internet to search for information about medical conditions and their treatment. Recent surveys suggest that patients search Internetbased resources more frequently than asking their own physicians about health care questions. 1 Differing from the more classic static Web sites, social media include the assorted computer tools, technologies, and applications designed to create true interactive virtual communities on the Internet. Even if your practice is not currently using social media formally, be assured that your patients are doing so. In fact, 20% of Americans search for health information through social media outlets, even if they consider other sources of medical information (such as hospital or physician Web sites) as more reliable.2 Of these, 1 in 4 survey respondents believed that social media was "very likely" or "likely" to influence future health care decisions.

Social media, such as Facebook, Twitter, YouTube, and Pinterest allow patients, physicians, practitioners, and staff to connect with others within or outside of their social and professional circles synchronously, without the conversation being constrained by time or location. Social media has the potential to empower, engage, and educate patients and physicians alike. The environment has evolved beyond the simple information-retrieval capabilities of "Web 1.0" to the newer "Web 2.0" concept, which allows users of these social media platforms to expand certain aspects of the doctor-

patient relationship well beyond the exam-room door. In the words of Steve Case (America Online founder) at the Revolution Health to the World Healthcare Innovation and Technology Congress in 2007: "Community is the killer app in health care." ³

Unlike mailed print media or electronic mail, social media lend themselves to a highly-customized user experience in which the user has control over the flow of information. This, in turn, increases the potential utility of interaction between practice and patient. As patients seek more and more health-related information online, dermatologists using social media have the opportunity to connect, educate, and build relationships and trust with patients who are seeking information. Moreover, the active participation of dermatologists in social media strategies can contribute to improved quality of information accessible to patients who go online to learn more about their health.

Of equal importance to the opportunities to connect with patients are the risks to a dermatologic practice that can come from inadequate or outdated understanding about the roles that social media plays in the lives of not only patients but also staff and practitioners. At a minimum, practice strategies should be developed to facilitate awareness and management of online reputation. In addition, dermatology practices should devote attention to periodic review and updates of policies to ensure that the interaction of practice members with patients through social media adheres to professional and ethical standards. Such practice strategies can benefit from understanding how social media work even if active engagement with a social medium platform is not immediately anticipated for the dermatologic practice.

Most users of the Internet are familiar with "search engines," such as Google, Yahoo, and Bing. For example,

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Social Medium	Description	Number of Users	Mobile Friendliness	Website Widgets and Integration	Photo sharing	Video Sharing	Advantages	Disadvantages
Facebook	Largest social network; users share and interact with stories, images and video	845 million	Apps for iPhone, iPad, Android, Blackberry, Windows and more	YES	YES	YES	User-friendly interface, connects with many other online media	Privacy settings confusing, may hinder user interactions with page
Twitter	Microblogging site; users send messages of 140 characters or less	140 million	Apps for iPhone, iPad, Android, Blackberry and Windows	YES	YES	NO	Focused, straightforward features; brevity of posts appeals to busy practices	Frequent updates necessary to maintain follower engagement
YouTube	Video sharing website where users can share and upload new videos	800 million	Apps for Android, Blackberry, iPhone, Nokia, Windows and others	YES	NO	YES	Video offers clear, visual means of communicating procedural content	Difficulty obscuring patient identity may limit procedural videos
Pinterest	Online "pin board"; users collect and curate pictures and videos of interest	21 million	App for iPhone. 3 rd party apps for Android and Windows	YES	YES	YES	Intuitive visual interface	Reorganization of "pins" impossible at present

Figure 1 Comparison of 4 social media for dermatologists.

Google receives > 3 billion queries daily, many of which are health related. Although search engines themselves are not a social medium, they have increasingly become gateways through their search results that link to information presented in a social medium context. In the past, the highest-ranking search results for a dermatology practice could be the practice's Web site. Today, in contrast, a practice that actively engages some of the most commonly used social media (Fig. 1) could find that its Facebook page is the most popular search result.

Facebook

Facebook was launched in 2004 and is currently the most popular social networking site in the world, with a member base of > 750 million. It is an effective 2-way communication tool that can be used to interact with your patients, build an online community, and provide a place for feedback. The average American Internet user spends 30 hours each month online, of which 8 hours are spent on Facebook.4 For dermatologists, the primary operational attraction of Facebook compared with a traditional Web site is the ease of updating content, and the degree to which news and other information can be seamlessly integrated by user choice into his or her overall Facebook experience. In Facebook, a typical user "builds" a customized Facebook site for his or her own use by selecting and linking with other Facebook users. This selection process feeds the linked Facebook content into the user's own Facebook pages, creating a kind of continuously updated online newspaper or newsfeed as well as a medium through which to actively contact and reply to other users instantly or synchronously. A dermatology practice with a Facebook presence can give the option of being one of the "building blocks" of the Facebook pages of others; thus, potentially connecting with patients, practice members, and other interested parties in a way that is difficult to accomplish with a traditional Web site.

Facebook users can also "share" stories or posts that they view in their own newsfeed, thus allowing such a story to grow virally among the user community. The most important consideration for a dermatology practice for its Facebook presence is content, particularly accuracy, quality, appropriateness, and updating of content. Closely following is the need to learn and apply the ways in which access and privacy controls are implemented in Facebook. The "fans" of a practice's site can typically post responses or comments. Special considerations include monitoring such responses for inappropriate comments, but also working to ensure that patients do not unintentionally make aspects of their medical privacy public.

Some might question the wisdom of allowing patients to post links and comments to a Facebook page belonging to a dermatology practice. The true value of Facebook and other social media is inherent in its "social" aspect. A static Web page offers the opportunity for 1-way communication with an audience, but Facebook remains an exemplar of what social media offers for symmetric 2-way communication. This opens up the possibility for dermatologists to engage in conversations with patients in a manner not previously possible, reaching an appropriate audience more comprehensively.

Consider the example of a teenager in your office who admits to using tanning beds before her prom. Although it is useful to have a conversation at that point about the risks of

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such tanning, that conversation ends when the patient leaves several minutes later. Dermatologists rarely have the time to sit with patients and review all the pertinent online materials. This conversation could potentially be extended on the Facebook page in a manner that completely maintains patient confidentiality. You might begin your post with "Its prom season!" or "How to protect your teenager from the risks of indoor tanning." This opens up opportunities for the practice to post links to detailed statistics about tanning booth risks, to YouTube Videos aimed at teenagers to describe these risks, and to sources for noncomedogenic sunscreens. These links might then be shared by your patients with others in their own circles, thus extending the reach and successive dissemination of your practice's original posting.

Despite the readily apparent ways that social media can play an integral role in your practice's marketing strategy, the benefits may be farther reaching. Patients often want a personal connection with their physicians, and not all posts to your practice's Facebook page need to be specifically related to the science and practice of dermatology. Humanizing your practice allows patients to gain a fuller understanding of the efforts, expertise and caring your practice and staff have to offer. Your Facebook presence can reflect your personality above and beyond simple curriculum vitae. Video from your staff's recent Advanced Cardiac Life Support recertification course can emphasize their dedication to patient safety. Photographs from a charity running race can demonstrate a commitment to broader health issues. A post congratulating a support staff member on their newborn child reveals your tight-knit workplace. Such examples reveal how a positive impression of your practice can be extended.

Allowing patients to post on your dermatology practice's Facebook page also affords unique opportunities to address common sources of medical misinformation. Mark Twain once wrote, "Be careful about reading health books. You may die of a misprint." The same might be stated for reading online! Topics ranging from reported dangers of sunscreen ingredients to the benefits of a tan to homespun remedies for acne cysts have all appeared as Facebook posts on dermatology-related sites, allowing dermatologists to offer reasoned knowledge-driven responses to a wide audience. This substantive and authentic interaction is a useful counterpoint to the wealth of medical misinformation available online. Even in the absence of expert leadership, online conversations about medical issues are often self-correcting with regard to misinformation.⁵

Many dermatologists maintain personal Facebook accounts in addition to professional pages. Although most health care professionals report that they would deny a "friend request" from a patient, many fail to restrict access to their online profiles to protect private information from the general public. Insufficient privacy protection can have an adverse effect on the doctor–patient relationship, thus any dermatologist who uses Facebook for personal reasons is advised to maintain careful scrutiny of their privacy protections.

Twitter

Twitter is a real-time social networking and microblogging broadcast tool for short text messages of 140 characters or less. It has gained its success by becoming a platform for sharing a specific subject with a potentially large audience of people one might or might not know. The communication on Twitter is much more asymmetric than with Facebook. Twitter subscribers may elect to follow a particular author's "tweets," but that author does not necessarily reciprocate in the conversation.

The rapid expansion of Twitter as a social medium is related to the transformation of cellular telephones into complex communication devices that bring the Internet nearly everywhere. This ease of access may be expected to increase with improved voice-activated search and communication capabilities that are afforded by such applications as Dragon Go. Twitter members can send and receive tweets on their cellular telephones, tablet computers, or other mobile devices easily. The simple structure, limited options, and enforced brevity make Twitter easy to learn and to use.

Twitter currently has a member base of > 200 million. More than 230 million "tweets," or short text messages, are issued by Twitter members daily. Each tweet is broadcasted instantly to all Twitter members who "follow" a particular member. An increasing number of Twitter members use this functionality to create "microblogs". Each month, > 400 million visitors read these tweets, which can appear almost instantaneously on mobile devices, laptop, and desktop computers, or in an e-mail. Often, Tweets can contain hyperlinks to deeper or more extensive information on the Internet or in other social media.

Being active on Twitter is the best way for a dermatologist to get other Twitter users to read his or her messages, but an author's reach is limited by the number of followers who are attracted to a particular Twitter stream. A successful Twitter strategy, therefore, must begin with building a Twitter base through which you can communicate. Typically, the more people you follow and the more content you access and "retweet," the more users will follow you.

A logical entry point for a dermatology practice to begin incorporating Twitter into its social media strategy is to promote news concerning the practice. Announcement of services, products, and clinics, introduction of professionals joining the practice, and comments on breaking practice-relevant dermatologic or medical news all lend themselves naturally to the Twitter audience. Such tweets can be linked to more comprehensive treatment on the practice's Web site or Facebook page.

Twitter has also been used to facilitate certain aspects of practice management. Tweets to specific Twitter members who are patients have been used by some practices to remind them about upcoming appointments as well as post-treatment follow-up actions that the patient needs to take. The privacy implications for this type of communication have yet to be fully explored. Tweets directed internally within a practice can update everyone concerning schedule changes, re-

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minders about staff meetings, and other practical notifica-

Twitter has proven particularly useful for reporting from medical conferences. Some information breaks first or only on Twitter, creating increasing opportunities to be able to cite these sources. The Modern Language Association has devised a standard format for tweets.⁸ An American Medical Association (AMA) standard citation format cannot be far behind!

YouTube

YouTube is a media-sharing platform that presents original video content. According to YouTube's Web site, > 60 hours of video are uploaded every minute, and > 4 billion videos are viewed per day. A total of 172 million US Internet users watched online video content in November alone, totaling about 5.2 billion viewing sessions.

A large part of YouTube's appeal is the visual nature of the streaming video. The YouTube platform allows dermatologists to post videos quickly and easily, which demonstrate expertise and discuss new medical procedures. Of concern is an emerging class of YouTube videos in which patients share home-based solutions to a variety of dermatologic conditions that might prove dangerous. Links to videos demonstrating incision and drainage of epidermal inclusion cysts, cryosurgery for skin cancer using dry ice,10 and toenail removal are easily accessible. As the number of uninsured individuals continues to rise in the United States, and waiting times for appointments extend beyond the acceptable, more patients may be expected to seek out this type of "How-To" video information. The popularity of these videos, although alarming, also speaks to the real potential for this medium to educate patients how to care for themselves and their families appropriately.

Pinterest

Pinterest was named 2012's hottest Web site by Cable News Network (CNN).¹¹ One of the newest social networks, it is also one of the fastest growing. This invitation-only Web site received nearly 11 million visits during the week ending December 17, 2011, almost 40 times the total number of visits just 6 months earlier.¹² Most Pinterest users are females aged between 24 and 44 years. This fact poses particular implications for health information consumerism, for this is precisely the group that makes most of the health care decisions for their families.¹³

As an image-based social network, Pinterest offers particular benefits to visual medical specialties, such as dermatology. The Pinterest Web site offers a "curation tool"¹⁴ that allows participants to build visual bulletin boards on which they "pin" items of interest. Boards might relate to a specific interest, such as "housecleaning tips." Once the tips are pinned, the board functions as an online visual file of these tips, with links back to the originating Web sites. How might this be used in dermatology?

Pinterest allows dermatologist users to accumulate diverse visual content sources that improve opportunities for patient

education and engagement. For example, a dermatology practice might gather photographs of clinical images of skin cancers, a video series demonstrating how to perform a skin self-examination, a link to the now-viral YouTube video "Dear 16-year old Me," up-to-date links on the best sources of well-performing sunscreens, and links to sites that offer information about how to protect children from the sun. These visual links could be aggregated on a board called "Protecting Your Family From Sun Damage and Skin Cancer."

Pinterest is a social medium that is in its infancy. Although it offers an inviting way to present dermatologic information, the current search function is in need of refinement. Patients will be unlikely to find your Pinterest boards on their own, thus these boards must be promoted through other social media outlets and static Web sites.

Developing a Social Media Strategy

Step 1. Decide on your audience or constituency, and your goals. Essential to determining your level of engagement with social media is determining the audience with whom you will be communicating. Not only current patients, but also potential patients, the public, and even your practice's own staff represent worthy constituencies. Goals for your practice might include establishing trust in your expertise, encouraging new patients to join the practice, introducing a new technology from which your patients may benefit, illustrating the human side of your practice by emphasizing humanitarian activities, or even improving staff morale by highlighting personal stories.

Step 2. Test the waters. What kinds of dermatologic information are online currently in your area? Is your practice being referenced in social media? Which of your patients are engaging in social media and on which platforms and channels? What kinds of dermatologic information are they seeking? Pay close attention to recurring topics, and how patients are describing their needs.

Step 3. Enlist champions. Discover which employees are social media enthusiasts and how they might be excited to help develop a social media program for your practice. Talk with your current patients, learn how they interact with social media, and how they might envision engaging with your practice online.

Step 4. Assess your resources and select 1 or 2 platforms on which to focus. Managing social media takes time, which is a challenge for busy practitioners. Focusing on 1 or 2 "channels" will likely be far more effective than a diluted social media campaign that is spread thinly across multiple platforms. Identify in advance who in your practice is going to assume your social media responsibilities. Find staff members who are passionate about your practice and social media. Determine ways to streamline their time spent online creating social media content. One very simple approach is to set up a Google Alerts¹⁷ to monitor the Web and receive e-mail updates of the latest relevant Google results based on

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your queries. A dermatology practice may, for example, set up Google Alerts to monitor the latest news for each of their dermatologists and specific keywords that may be relevant to their practice. A Really Simple Syndication (RSS) feed may be useful for monitoring the American Academy of Dermatology. These data sources will serve as a constant stream of inspiration for social media postings that will appeal to your patient population.

Step 5. Define social media success. It is often difficult to quantify the benefits of social media interaction for a dermatology practice, as classical measurements for marketing return-on-investment may well prove impossible. Most social media sites offer statistical analysis tools that offer some rudimentary tracking possibilities. For example, Facebook offers "Facebook Insights" that can offer detailed monitoring of your fan numbers, friends of fans, and weekly total reach. Specific posts are rated with regard to their reach and "virality," allowing users to monitor what types of posts were most likely to generate audience interest.

Special Considerations: Professionalism, Health Insurance Portability and Accountability Act, Crisis Planning

Driven by the explosion of interest among patients and physicians alike in social media communications, the AMA recently issued a policy statement regarding professionalism in the use of social media. ¹⁸ Among other considerations, the AMA's policy encourages physicians to use privacy settings to protect personal information, to routinely monitor their Internet presence to ensure that all information is accurate and appropriate, to separate personal and professional content online, and to maintain appropriate boundaries of the patient–physician relationship.

Through social media applications, physicians risk broadcasting unprofessional conduct that may reflect poorly on their practice, their affiliated institutions, and the medical profession as a whole.¹⁹ In an anonymous electronic survey of medical schools in 2009, 60% reported incidents of students posting unprofessional conduct online, ranging from violations of patient confidentiality, to use of profanity or frankly discriminatory language, depiction of intoxication, and sexually suggestive material.²⁰ Physicians and medical students alike may be unaware of the medical professionalism implications their social media postings might have as they "tread" through the World Wide Web.21 Social media can foster a sense of anonymity and detachment from social cues and consequences for online actions, but physicians should realize that, by the very nature of social media, all content posted has the potential to become public and permanent. Subpoenas can be issued requiring Internet service providers to produce Internet Protocol addresses or e-mail addresses that identify the source of any content.²² Dermatologists may be well advised to proactively manage their

"social media footprint" by carefully maximizing their online privacy settings and monitoring their online presence by performing "electronic self audits." ²³

Just as unprofessional conduct can be widely broadcast through social media channels, so can positive professional conduct that serves to promote the doctor—patient relationship. Dermatologists can use these tools to help their patients find their way through the barrage of online medical information (and disinformation). Offering these channels of communication to our patients serves as a useful antidote to less credible sources of information, allowing dermatologists to move beyond simply protecting their online reputations and toward actively promoting healthy values and well-researched information for our patients.

Health Insurance Portability and Accountability Act

The Health Insurance Portability and Accountability Act (HIPAA) prohibits releasing medical information without authorization. It is a federal law that states that a patient has control of his or her own protected health information. No one else can release that information without the consent of that patient. The very same patient privacy rules that apply to standard communication methods in your dermatology practice also apply to any of your practice's social media activities. Don't allow this HIPAA anxiety prevent you from embracing social media. Review your code of conduct with your employees and explain how this extends to social media platforms as well. Prominently post your patient privacy policies on all of your social media platforms. Review your social media outlets at least once daily to help you respond quickly and build strong trusting relationships.

Crisis Communication

The winter of 2011 brought unprecedented snowfalls to the Northeast that impacted patients and physicians alike in being able to reach our dermatology offices in the Boston area. This presented challenges in communicating to our staff and patients alike when, because of declared States of Emergency, our office had to be closed or appointments delayed on short notice. Social media tools have increased the potential for us to reach a large audience with this type of information in a short period, informing them of office closures and delays. Social media in general, and Facebook specifically, offered new means of communicating essential information to our patients and staff. But to use social media successfully in this context, your practice must define and build its target audience, establishing the value of your content and relationship in advance of a crisis. If your patients and staff know that they can receive reliable up-to-date information on your Facebook site, then they will think to check there for information.

The first important step is being aware of these new social media and monitoring how your practice is being viewed through these channels. Many dermatologists have already availed themselves of the opportunity to expand their reach and communication with patients through these media,

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which remain in their infancy. The next few years will likely bring an increased dermatologic presence on these platforms, as well as clarified guidance with respect to managing ethical and patient privacy issues that these media raise.

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