



Published in final edited form as:

*Online J Health Allied Sci.* 2011 July 30; 10(2): .

## Recommendations for Using Online Social Networking Technologies to Reduce Inaccurate Online Health Information

Sean D. Young, PhD, MS<sup>1</sup>

<sup>1</sup>Department of Family Medicine, University of California, Los Angeles, CA, USA

### Abstract

This short report highlights the increasing use of the Internet and online social networking technologies for health information and health decision making, and the consequences of seeking information from sites with biased or inaccurate health information. As the number of disreputable health information sites continues to grow rapidly, this paper provides practical advice for health providers on how they can help prevent health information consumers from seeking inaccurate information online. Reflecting on the utility of online social networking technologies for reaching large audiences, we recommend that health providers use online social networking technologies to communicate with patients and consumers of health information and direct them to reputable sources with accurate health information. We outline the steps to this approach.

### Keywords

online social networking technologies; online sources of health information; practical advice

### Introduction

Less than 10 years ago, an Internet search with the keywords “online health information resources” would have retrieved approximately 70,000 related websites.<sup>1, 2</sup> Today the same search leads to over 154 million related websites. The tremendous growth of online health information sources helps to explain how nearly 8 out of 10 people use the Internet to search for health information and base their health decisions and behaviors on these sources. In fact, on a typical day in 2005, approximately 8 million (2.7%) Americans searched for health information on at least 1 health-related topic.<sup>3</sup> Just four years later, 61% of Americans reported searching for health information online and over 60% of these people reported that their online searches impacted their health decisions.<sup>4</sup> This number continues to grow each day.

Online social networking technologies, such as Facebook, are also impacting people’s health decisions and behaviors. Online social networks allow users to set virtual profile pages where they can communicate with other users by sending messages, sharing pictures and videos, and live chatting. Over 500 million people are currently using Facebook, and consumers have the opportunity to use these online social networking technologies to find health providers, join patient groups, and search for health information.<sup>5</sup> As online social networks continue to grow, patients will increasingly turn to these networks for seeking health information, support groups, and physician referrals.

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Direct correspondence to: Sean D. Young, PhD, MS, Department of Family Medicine, 10880 Wilshire Blvd. Suite 1800, Los Angeles, CA 90024, Phone: 310-794-0619 Ext. 240, Fax: 310-794-3580, sdyoung@mednet.ucla.edu.

However, sources of online health information both on the general Internet and on online social networks may contain inaccurate information. For example, a study in the Netherlands looked at 121 health websites providing information on 5 common health topics (chronic obstructive lung disease, ankle strain, emergency contraception, abnormally heavy menstrual bleeding, and tubal ligation) using peer reviewed, published guidelines on how to provide safe and accurate health information. They found that only one quarter of the sites met at least two out of three criteria that were needed for quality health information and nearly half met less than one. In a separate meta-analysis study, the authors discovered that 55 out of 79 studies (70%) reported that online health information sources contain low quality and inaccurate information.<sup>6</sup>

Inaccurate online health information can often result from biased sponsors or conflicts of interest. For example, many of the advertisements and Websites providing information about the relationship between vaccines and Autism can be attributed to wealthy anti-autism groups.<sup>7</sup> These sponsored health information sites support physicians' reports that fears about vaccines have led 54% of parents to refuse to allow their child to be fully vaccinated, and 85% refused their child to have one or more shots.<sup>8</sup>

Health practitioners are becoming increasingly aware of the reality of the problems associated with patients receiving inaccurate health information. Sites with inaccurate or biased health information are 1) increasing rates of patient self-medicating, 2) leading patients to pass on inaccurate information to others, and 3) reducing patient adherence to provider recommendations<sup>6</sup>. These problems are growing rapidly: one study showed that inaccurate posts on the online social network, twitter, instantly connected over 850,000 people who can respond and perpetuate the misinformation.<sup>9</sup>

However, simply increasing the number of reputable sites online will not necessarily lead patients to receive accurate health information because patients are often making cursory and uneducated health information searches. A usability study on computer-savvy participants (ages 19-71) found that participants judged health information by whether it "sounded scientific" and looked professional.<sup>10</sup> Nearly all participants trusted what they read although none of them checked the source, read about the home site, or read the disclaimers or disclosure statements. Instead of increasing the number reputable sites online, highlighting reputable sources of health information may help to better direct consumers to receive accurate health information.

Although government is taking an increasingly active role in patient health, we wish to argue that government-appointed committees would not need to be the sole method for highlighting reputable health information websites. Instead, health providers can play an active role in this process, and through this process, reduce the costs associated with appointing government committees for this purpose.

Researchers have called for an evidence-based approach to deliver health information using technologies,<sup>11</sup> and providers can use these technologies to deliver information about the accuracy of health information online. By using online social networking technologies, the same technology that many patients are using to discover health information, providers can reach large audiences of current and potential future patients and reduce the influence of sites with inaccurate health information. Through the use of these technologies, health providers can post information to help patients receive accurate health information online. These posts could require as little time as providing recommendations for valid sources of health information and suggestions for sites to avoid, to as much contact with patients as providing active blog posts updating patients about online sources health information and the accuracy of their claims.

Surprisingly, few providers maintain or endorse the use of online social networking sites. There are multiple reasons why providers may choose to not have online social networking pages or to not use them for delivering health-related advice. For instance, they might: 1) think it will take a long time to set up an online social networking page, 2) not know how to use online social networking technologies, 3) think that it takes too much time to use them, 4) fear the legal consequences of providing medical advice over the Internet, 5) do not see the financial benefit of setting up a profile, and 6) do not want patients contacting them outside of their office. For example, a recent article in the *New England Journal of Medicine* described a physician's initial reluctance to add a former patient as a Facebook friend.<sup>12</sup> By setting up an online social networking page, providers might therefore believe they are releasing their identify and exposing themselves to future problems with future or former patients.

## Recommendations

We write this paper to communicate our beliefs that health providers, through a small commitment to use online social networking technologies, can play an active role in preventing the growing trend of patients receiving inaccurate health information online. Fortunately, they can do this in a way that takes little time, is in accordance with legal regulations, and will bring both societal and economic rewards without compromising their privacy or identity.

We outline the following steps for health practitioners and believe that these steps can prevent patients from receiving inaccurate health information and improve the practice of health providers:

1. *Create an account on Facebook, Myspace, or any online social networks that may be relevant to your specialization and the patients you advise.* Accounts can be set up as profile pages, describing an individual, or as a corporate or (secondary) page. A secondary account can be created in order to keep your profile professional and public while also being able to maintain a private life.
2. *Provide information about your expertise along with a statement that includes advice that you would provide for others including websites that you have seen provide accurate health information.* By posting references to websites that are reputable sources for health information (such as the Centers for Disease Control and Prevention websites), health providers will be able to reduce the impact of consumers receiving inaccurate health information online. Further, providers can avoid potential legal issues by referring online health information seekers to view government websites that have been set up to provide accurate health information. In the United States, only 1 of the top 10 most visited health websites is a government (.gov) sites.<sup>13</sup>
3. *Provide information about your location, whether you are willing to receive emails, and how often you plan to respond to their messages. Set your profile security settings to a level according to your comfort.* Provide information about your specialty and background. It is important to set up security settings and state your level of commitment to those who might contact you. Taking a more active role in communication with patients via social networking technologies (such as through multi-media posts or blog updates) could potentially increase patients for providers who want to expand their practice. In fact, many people report having found a health provider or keeping in touch with their provider through online social networks.<sup>14</sup>

## Conclusion

Online consumers of health information are at risk because they are using disreputable health information sources to guide their health decisions and behaviors. This report has offered practical advice on how health information providers can use online social networking technologies to direct consumers to reputable health information sites in order to curb this problem. We believe these steps will be in the best interest of both health providers and patients, and will be a cost-effective approach to reduce the consequences of patients receiving inaccurate online health information.

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