On Social Media in Health Literacy

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Article ID: WMC002936
Article Type: Review articles
Submitted on: 28-Jan-2012, 04:21:37 PM GMT   Published on: 29-Jan-2012, 11:12:10 AM GMT
Article URL: http://www.webmedcentral.com/article_view/2936
Subject Categories: HEALTH INFORMATICS
Keywords: Social media, Health literacy

How to cite the article: Kamel Boulos M N. On Social Media in Health Literacy. WebmedCentral HEALTH INFORMATICS 2012;3(1):WMC002936

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Source(s) of Funding:
None.

Competing Interests:
The author declares that he has no competing interests.
On Social Media in Health Literacy

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Abstract

This short, non-exhaustive article considers health literacy in the era of the Social and Mobile Web. We briefly discuss with some examples the important role that social media are playing today in health literacy, the associated risks, and the workarounds to mitigate those risks. We conclude by providing some guidelines and pointers to key online resources and bibliography about the subject.

Introduction

In 2011, about 30.2% (2.1 billion) of the world’s population had access to the Internet (78.3% of North America’s and 58.3% of Europe’s populations) [1], and searching for health information online became increasingly common; for example, about two-thirds of US adults look online for health information according to figures released in 2010 by the Pew Internet & American Life Project [2,3].

Large proportions of adults in developed countries have limited health literacy skills (even among native, non-immigrant communities and some university graduates) [4]. For example, in the USA, 88% of adults do not have the necessary skills to manage their health and prevent disease, according to the US ‘2003 National Assessment of Adult Literacy (NAAL)’ survey [5]. In 2004, the US Institute of Medicine (IOM) published a shocking video (available on YouTube at [6]), based on their report released in the same year and entitled ‘Health Literacy: A Prescription to End Confusion’ [7].

Internet users include people with limited health literacy skills, although a US ‘2007 Health Information National Trends Survey’ found that Internet users tended to be more educated, with higher income, and preferred numbers rather than words to describe chance [8].

There have been many definitions of ‘health literacy’ [9], but for the purpose of discussing the role of social media in health literacy, we will refer to the following working definition of health literacy from the US Department of Health and Human Services’ report ‘Healthy People 2010’ [10]: “The degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions”.

Skills needed for health literacy on the Internet include all the conventional health literacy skills, in addition to computer and Internet literacy skills, and skills for locating and appraising online health information [11]. But having access to the Internet and mastering the essential computer and Web skills does not automatically guarantee that a person will be able to properly evaluate and understand online health information.

Role of social media

Social media and social networking now reach four out of five (i.e., 80% of) active Internet users in the USA, according to a Q3 2011 report by Nielsen [12]. Using the above definition of health literacy, social media can potentially improve users’ capacity to (1) obtain, and (2) process and understand health information and services needed to make appropriate health decisions. But it is particularly the first of these two capacities, the capacity to obtain/access health information, which can be immediately improved by social media. The second capacity to process and understand health information depends on factors that vary widely across the Web, namely the content quality and presentation of online health information and the degree they match the needs and health literacy levels of target audiences.

Viral social marketing (reaching out to many more people, more quickly and with minimal costs, compared to other forms of marketing/advertising) is among the strongest aspects of social media and can play an important role in health education, promotion and outreach programmes [13]. For example, viral marketing and other social media techniques have been successfully used to promote condom use in Turkey [14]. Online social networks and participatory communication methods can also provide excellent opportunities for peer-to-peer support (patients and members of the general public supporting each other) [15,16] (Figure 1), and thus contribute to reducing the burden on conventional healthcare systems.

m-health (mobile health)

A Morgan Stanley presentation published in 2010 is predicting that mobile Web access via smartphones and other small form factor Internet devices, such as the Apple iPad and clones of small touch-screen tablets, will overtake conventional desktop Internet use by 2015 [17]. UK mobile Internet use is already
Social media pose higher risks compared to other conventional media (e.g., TV and print material), due to the much wider outreach of the Social Web and its partly uncontrollable/non-moderated nature (‘anyone can publish whatever they want’). The risks include spreading misinformation (very rapidly through viral messages and videos/e-WOM—Electronic Word of Mouth and/or through hacked/compromised social media accounts [33]), disseminating biased or incomplete (and thus potentially risky) information—see, for example, [32,34-39], or publishing information that is hard to understand by its intended audience or is presented in such a way that makes misunderstanding a likely possibility (misunderstanding can have serious negative consequences—see, for example, [6]).

There is no easy way to remove or stop all the ‘bad’ information out there, but we can always provide and advertise good information and educate people about, and expose, misleading online material (or representative examples of it). Consumer education can be effectively done using the same social media tools, while “pushing” plenty of good material can be achieved by creating trustworthy social media channels for this purpose, and socially marketing these channels; see, for example, the official NHS Choices (National Health Service in England) and US CDC (Centers for Disease Control and Prevention) channels and special campaigns on Facebook [40,41]. (The NHS in England/DH (Department of Health) also spent £2.7m on a Google AdWords campaign in 2009/2010 to promote NHS Choices, but a few groups criticised them for doing so [42].)

However, with users being able to freely write text and post comments on an organisation’s social media presence, e.g., on a Facebook ‘Wall’, maintainers of social media pages should regularly monitor and moderate their content for any forms of spam, abuse or patient privacy violations (turning off all user posting/commenting is not a good option as this will remove the ‘social’ from social media). Account admins should also protect their presences with strong passwords to avoid their accounts getting hacked by spammers [33].

Other workarounds and strategies include connecting social-media technologies to evidence-informed online resources, matching new applications with the correct user populations, and integrating health communication best practices, including addressing health literacy issues in the relevant social media content [4,30,31]. Organisations should allocate sufficient personnel time and resources to look after their social media presences (this can be a very demanding task), and develop and enforce clear policies and guidelines regarding what their members of staff can post on various social media [25].

Guidelines and resources

Social media content and choice of medium (e.g., using a blog article vs. a YouTube video vs. using both media vs. a dedicated mobile app, etc.) need to be tailored to suit the profiles and preferences of target audiences and their ‘reading with understanding’ levels. Involving representatives from the target audiences in planning, implementing, disseminating and evaluating online health information and services is of prime importance [4]. A strategy based on ‘shared-audience information sets’ (based on evidence-based material originally compiled for clinicians) [43] can be adopted to maximise the efficiencies of content authoring and delivery vs. varying degrees of patient literacy, from the ‘expert patient’ to the completely illiterate layperson (Figure 3). The US CDC offers a number of excellent health literacy, social media and social marketing training materials, guidelines and toolkits that can prove very helpful to social media content developers and public health practitioners in general [44-47] (Figure 4).
Coda
Today, the question is no longer whether or not to use social media (among other tools) for health literacy purposes. Rather, the question is which social media to target (within available budget and resources) and how to best do so. With more than 800 million active Facebook users (half of them log on each day) [48] and 100 million active Twitter users [49], healthcare and public health organisations cannot afford to ignore social media as a powerful means for reaching out to their stakeholders, including patients, lay carers, and the general public. Health organisations should go where people already are online (on social media), rather than just build their own isolated Web islands of ‘read-only’ information and expect people to come and visit.

Illustration legends
Figure 1. Run jointly by UCLA School of Public Health and Health Net, Inc. in the United States, T2X (Teen2Xtreme - http://www.t2x.me/) offers a Facebook-linked, teen-only community of users, with teen and professionally produced content, competitions, games, quizzes, blogs, (YouTube) video sharing and other interactive and participatory communication methods. T2X covers lifestyle issues for teens, such as nutrition, fitness, stress management, substance abuse and sexual behaviour [16].

Figure 2. The Plain Language Medical Dictionary iPhone app from the University of Michigan’s Taubman Health Science Library converts medical language jargon into everyday English. The app is free (http://itunes.apple.com/us/app/plain-language-medical-dictionary/id443405990?mt=8).

Figure 3. Shared-audience information sets for maximising the efficiencies of content authoring and delivery vs. varying degrees of patient literacy from the expert patient to the completely illiterate layperson (by the author; originally published in [43]).

Figure 4. Screenshots of a US CDC online course (free) entitled ‘Health Literacy for Public Health Professionals’ [46].

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Illustrations

Illustration 1

Figure 1
Illustration 2

Figure 2
Illustration 3

Figure 3
Illustration 4

Figure 4

Improving Health Literacy

Improving health literacy skills requires a comprehensive set of strategies that includes those listed below. Using these strategies will improve the usability of the health information, making your messages more understandable.

- Use plain language.
- Use culturally and linguistically appropriate messages.
- Design messages that are participatory and user-centered.
- Evaluate the effectiveness of communications.
- Engage regularly with the communities who are targeted by the communication.
- Consider the current literacy level of the intended audience, and design messages based on that level.

Tameika Fairley, PhD, Epidemiologist, discusses the challenges of communicating data to the public.
Improving Health Literacy (continued)

Creating podcasts and videos are one way of improving the delivery of public health messages. The following links provide examples that incorporate user-centered design principles for effective communication.

- Puff City (Web-based program)
  [http://thing1.chcr.med.umich.edu/cgi-bin/WebObjects/PuffCity2.woa/wa/demo#animate](http://thing1.chcr.med.umich.edu/cgi-bin/WebObjects/PuffCity2.woa/wa/demo#animate)

- Put Your Hands Together (video clip)

- Seniors: Vaccinate for Your Health's Sake! (podcast)
  [http://www2a.cdc.gov/podcasts/player.asp?f=10563](http://www2a.cdc.gov/podcasts/player.asp?f=10563)

As you listen to these examples, think about how they demonstrate the principles.
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