

Evolution Of A Consumer Segment: Patient 2.0 Using Web 2.0 Tools In Healthcare

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ABSTRACT

As Internet gets more interactive in its applications, the Internet users have been adapting to this change. While initial users of the Internet have been content with a passive approach of simply surfing the static websites, the current users are more interested in interacting with the website providers in such ways that those websites end up by being completely dynamic. As we move from a general population of Internet users to a smaller group of patients who are online health information seekers, we see a similar transition. Patients who had been using the Internet to access medical information in the past were mostly concerned with being able to find creditable websites to use to learn about their symptoms, cures, medications, etc. Patients who are currently online are concerned with finding websites not only credible to use to learn about their conditions but also interactive enough for them to share their stories with others. By interacting with others, they get more involved, learn, help others to learn, and eventually become a crucial part of the entire process. This paper reviews the term "Patient 2.0" that points to the type of patient who is more empowered, active, IT literate, and informed.

Keywords: Healthcare; Web 2.0; Wiki; Blog; Podcast; Social Networking Community

INTRODUCTION

The term "Patient 2.0" is used to describe the new patient role emerging due to ongoing changes in interactive healthcare practices and patient treatment. A combination of aging population, increasing percentage of chronic diseases, decreasing workforce in the healthcare industry and the steady growth in spending has resulted in a creation of re-organized healthcare administration which is based on patient involvement and participation in treatment by using the online options. It is a concept derived from the "Web 2.0" definition that covers Internet practices that are driven primarily by the users. In that sense, Patient 2.0 refers to technologically empowered patients who engage in new forms of participation, collaboration, and self-management practices and they are the main participants of the envisioned future of restructured healthcare practices.

The purpose of this paper is to review the Patient 2.0 literature and highlight some of the underlying characteristics of the patients who make up the Patient 2.0. It is hoped that as these issues are examined properly, one would be able to define and understand the Patient 2.0 better to develop those healthcare strategies which are not just creative but also practical.

EVOLUTION OF HEALTH INFORMATION SEEKERS

We have been seeing many tangible examples of Internet use in many facets of healthcare industry for a long while now. Both providers and patients are currently pursuing Internet-related strategies, remedies, and routines. Interactive health communications have been extremely popular for various parties in this industry (Schiavo 2008). More people are going online for medical advice on any given day than actually visiting health professionals, according to figures provided by the American Medical Association. Matter of fact, it has been stated that majority of the US Internet users are indeed looking for health information which is, interestingly, accessed more than sports, stocks, and shopping. These health information seekers are often called "cyberchondriacs."

The term “cyberchondria” is related to the term “hypochondria” which is an abnormal anxiety that one may develop regarding his/her health. Traditionally, hyperchondriacs would use various medical references to examine their conditions and validate their health. Nowadays, the availability of health information on Internet has made it easier for those who worry over their ‘potential’ illnesses to do a similar research at a greater scale. Cyberchondriacs are those who like to use the Internet to educate themselves about their medical conditions. It has been stated that these users believe that once they improve their medical knowledge base by using the latest online information sources, they will also be able to improve the quality of consultation with their physicians. Based on the 2010 Harris Poll survey, the number of cyberchondriacs leaped from 154 million in 2009 to 175 million in 2010 (88 percent of the US online population). The same poll shows that 32 percent of adults say that they regularly look online for health-related information compared to 22 percent in 2009.

From Cyberchondriacs To Patient 2.0

As the Internet has gradually evolved into a more interactive form over time, it was just a matter of time for those cyberchondriacs to adapt and evolve into a new segment, called Patient 2.0. Not surprisingly, the earlier Patient 2.0 assertions were using essentially the same description with the cyberchondriacs. For instance, Mol (2006) stated that the patients who are classified as Patient 2.0 were simply “health consumers” who believed in maximizing the quality of their lives by accessing and processing health information to self-manage their treatments.

Going along with the main premise of cyberchondriacs, these patients assume that they can make informed decisions based on information on transparent grounds and by this way, they take responsibility for themselves. What makes these patients different than the main category of cyberchondriacs is the way they gather the online health information and the impact they have on the entire healthcare industry. Accordingly, the more unique and updated assertion of the Patient 2.0 is one where these patients engage in social networks and share their personal information and experiences. By doing that, they facilitate the knowledge base circulate among different parties, supplement the existing medical practices and potentially result in the creation of new ways of knowing and treating the diseases in question (Nettleton and Burrows 2003). It is important to note that in this case, the terms of empowerment and patient participation are renegotiated and the traditional distribution of authority in the healthcare system is challenged by Patient 2.0 (Callon, Lascoumes, and Barthe 2009; Epstein 2008). In order to understand this assertion fully, one needs to understand first the meaning of Web 2.0 and Web 2.0 tools.

UNDERSTANDING WEB 2.0 AND WEB 2.0 TOOLS

The term Web 2.0 represents the move from static, provider-centered content and applications to a more interactive approach. In this context, Web 1.0 is the traditional setting where end-users such as patients and physicians access a static website of a trusted source hosted by medical journals or entities such as WebMD (McLean, Richards, and Wardman 2007). Web 2.0 is essentially the next step in the continuum evolving from Web 1.0 since the users contribute to the content of a website and their contributions help to generate more interactions among users and expedite the knowledge base to higher levels (Alkhateeb, Clauson, Khanfar, and Latif 2008).

Web 2.0 applications and tools include wikis, blogs, podcasts, and social networking communities which have been very popular for a long while now. A wiki (*work in progress*) is a fluid and collaborative collection of web pages where everyone in a given community can add, delete or modify content (Taylor-Mendes 2007). Wikis are typically powered by Wiki software and often created collaboratively by multiple users. It has been reported that there are many educational institutions that are currently using wikis to enhance group learning. One of the most successful examples of wikis is Wikipedia.

A blog (combination of *web and log*) is another dynamic tool which is often compared to an online diary or journal that is consisted of discrete entries (i.e., posts), typically displayed in a reverse chronological order to show the most recent posts first. While a blog can be spearheaded by one person, it includes others’ contributions and messages to one another. This interactivity among the participants results in an ongoing dialogue which makes the blog very different than a static website (Bonetta 2007). While these dialogues make up the main body of blogs, blogs can be rather extensive by including links and other types of media.

Another one of these Web 2.0 tools, especially popular for educational purposes, is podcasting. Podcast (combination of *broadcast* and *pod*) is essentially a digital media that is available for on-demand downloading from the Internet. This audio or video (vodcast) content can later be played on personal audio/media players and/or personal computers (Alkhateeb, Clauson, Khanfar, and Latif 2008). Since podcasting is done when these devices are offline, it is different and a lot more convenient than Internet streaming.

A social networking community is an online service or site that focuses on building social networks or social relations among people who share similar interests, activities, and/or backgrounds. Users have their individual profiles (along with their social links) and they interact with one another via e-mail or instant messaging. In this sense, a social networking community provides a platform for an individual-centered service by facilitating its users share their ideas, activities, events, interests, etc. within their individual networks. In a recent PEW survey, 79 percent of American adults said they used the Internet and nearly half of adults (47 percent), or 59 percent of Internet users, say they use at least one social network site. Facebook and LinkedIn are some of the most popular social network sites at the moment. It should be noted that it is also common at times for some users to find other users with similar problems and/or interests (niche networking) and they end up meeting offline. In those cases, relationships are formed online and eventually carried to offline/in person settings.

Patient 2.0 Using Web 2.0 Tools

The Web 2.0 tools mentioned above are being adopted by internet-savvy patients as a source of information and discourse about medical cases and treatment options. Following are some of the examples of these adoptions.

There are a number of online medical wiki encyclopedias that are currently rather popular for numerous participants of the healthcare industry. WebHealth, Ganfyd, Medpedia, WikiSurgery, AskDrWiki, Healthplusplus, WikiDoc are just a few examples. Many believe that medical wikis play a very important educational role as long as they are able to maintain strict guidelines in some areas such as number and qualifications of contributors, continuous updates and revisions of contributions, interactive nature of the design, etc. In order to assure the accuracy of contributions, a few of the wikis, such as Medpedia, Ganfyd, and AskDrWiki, limit their contributors to only registered medical professionals with M.D.s or Ph.D.s in a biomedical field. Unfortunately, most of the other wikis have a policy that makes it possible for anybody to contribute once they register. This can be problematic since there is no way of knowing why some of those contributors add into those wikis. While the “declared” reason may be sharing the information, one should be curious about the “hidden” reason which may be supporting a certain practice, medicine, or a group of individuals/institutions for personal gain. It is hoped that as patients who use these wikis get more informed and educated as the ones described here as Patient 2.0, they will be able to differentiate a “good” wiki from a “bad” one and as they continue to use the good ones, the bad ones will be forced to improve or disappear.

Medical blogging has been reported to be another one of Web 2.0 tools that has been very popular for physicians and pharmaceutical companies as well as patients. Kovic, Lulic and Brumini (2008) stated that most of the medical bloggers are different than general bloggers in the sense that they are highly educated (many published papers in the past), heavy Internet users (most had personal websites at some point in time), and currently working in healthcare industry. It has been believed that many bloggers are in fact physicians who seem to want to blow off steam about issues such as big pharmaceutical firms’ appeals to patients to take expensive drugs that are not needed, or increasingly pricey medical malpractice insurance, or trial lawyers who are anxious to take them to court, etc. Not surprisingly, most of these bloggers guard their anonymity. While these findings point to medical professionals as bloggers, it is important to point out the fact that they are the ones who interact with patients who are described here as Patient 2.0. Since these bloggers are able to make rather credible arguments due to their qualifications, patients who use these blogs become more informed than ordinary patients. Accordingly, as they educate themselves by following the discussions in those blogs, they get more involved and eventually interact with other participants of the blogs. As the interactions among the informed and/or educated parties increase, the quality of the information created in the blog moves to a higher level and develops a potential for exploration of newer ideas and alternative remedies.

On the other hand, one still needs to be cautious in using the information in some medical blogs. As stated by Alkhateeb, Clauson, Khanfar, and Latif (2008), medical blogging has been struggling with issues such as ethics, accepting advertising dollars and having (direct and/or indirect) ties to pharmaceutical companies. Even though there are various efforts to implement a healthcare blogger code of ethics to insure that the bloggers pay attention to issues such as clear representation of perspective, confidentiality, commercial disclosure, reliable information, and courtesy, bloggers are not officially mandated to follow these principles.

Podcasting is a very common tool that is being used used for patient education, medical education, and medical journals. While physicians and medical schools have been the parties who initially took advantage of podcasting, as IT which facilitates podcasting (such as iTunes and iPod) became readily available to average consumers, patients have been adopting podcasting to educate themselves. It is not uncommon for patients to download digital media about a certain medical condition and/ or procedure from the Internet and listen (podcasts) or watch (vodcasts) them at their leisure. Knowing this latest trend, various medical institutions such as Johns Hopkins Hospital, University of Texas Health Science Center, Medical University of South Carolina, Drexel University College of Medicine, and Cleveland Clinic offer weekly podcasts covering the top medical stories of the week to those who like to be more informed patients. As these patients get more educated, they are provided by even more informative podcasts and vodcasts by major information sources in the medical field such as the National Institutes of Health, the New England Journal of Medicine, the Journal of the American Medical Association, the American College of Cardiology, the Annals of Internal Medicine, the Society of Critical Care Medicine, and the American Academy of Family Physicians.

Medical social networking is another tool available to the participants of the health care industry. It is not uncommon for medical professionals to use social media such as Facebook , Twitter, and LinkedIn to connect with patients to share trusted and accurate health information and to empower them to be proactive in their health. It is important to note that once these medical professionals such as physicians and hospitals connect with their patients and empower them, they also strengthen their relationships with them and add on the trust that patients have with them. This is extremely crucial since most patients are looking for not only informational support but also emotional support (Eysenbach, Powell, Englesakis, Rizo, and Stern 2004). Online communities such as MedHelp, Inspire, CureTogether, and PatientsLikeMe are based on satisfying these two types of support. Participating in these and similar communities provides an additional route to those patients as well as healthcare professionals to interact with one another and establish a supplementary communication network that can facilitate a better flow of information. After all, patients described here as Patient 2.0 do not want to be told what to do; instead they want to work with their service providers to develop a customized plan that caters to their unique needs. They want to communicate with other patients who are going through similar experiences, they want to collaborate with them, and they want to make medical professionals aware of these activities.

CONCLUDING REMARKS

Patients, health professionals, and biomedical researchers are believed to be the three main participants in the field of healthcare. While each of these groups has a different level of “formal” training, even end users (patients) can be seen as experts and—according to the Web 2.0 philosophy—their collective wisdom can and should be harnessed: “the health professional is an expert in identifying disease, while the patient is an expert in experiencing it” (Davidson and Pennebaker 1997, p. 463). Therefore, it is extremely important to have a good understanding of these patients and what they are looking for in their interactions with the other participants in this field. It is equally important that once we have a full grasp of these patients in terms of their needs, habits, preferences, etc., we need to make sure that they are provided with numerous opportunities to interact not only with other patients, but also with health professionals and biomedical researchers. As these participants exchange information with each other, they relate to one another which helps create a foundation that is built on mutual trust and satisfaction. Needless to say, that would be the ultimate foundation for the field of healthcare...

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