Teaching Students About CyberHealth Information

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Teaching Students About CyberHealth Information

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.01 Sharing Responsibility (return to index)

More than two decades have passed since Norman Cousins roused his readers to share responsibility for their own health care in his book Anatomy of an Illness as Perceived by the Patient. In the book, which spent more than 40 weeks on The New York Times bestseller list and has gone through multiple reprints, Cousins encouraged the sick person to be a “respected partner” with trusted medical professionals on the course to recovery. They would be joining others, he said, who were increasingly demonstrating a layperson’s interest in health-related issues and, by extension, their own physical and mental well-being.

“The rapid rise in the educational level of Americans was reflected in the ability of many people to inform themselves to a far greater extent than ever before about health matters,” Cousins wrote. “Many millions of Americans got into the habit of following medical developments. In their own relationships with physicians they no longer were disposed to accept medical decisions unquestioningly. They tended to evaluate doctors according to the willingness of the physician to enter into a mutually respectful dialogue with them” (p. 117). [1]

Cousins detailed his own recovery from a debilitating medical condition, a process that required
considerable research and questioning on his part. He credited his proactive approach and positive attitude for his return to good health. While acknowledging the value of conventional medicine, he urged the patient to fully understand the ramifications of all medical decisions and explore alternatives in an informed and responsible way. This required aggressive information-seeking skills. Today (unlike in Cousins’ day when his book was first published) the Internet can play a central role in health research and education.

.02 Information-Seeking (return to index)

Research on Internet use patterns has shown that about 110 million people (which is the vast majority of American Internet users) sometimes search for health information online. [2] Moreover, in a Pew Internet and American Life survey conducted in September and October 2002, 81 percent of American Internet users said they expect that they can find reliable information about health or medical conditions online. Many Internet users say they will turn to the Internet first when they need information about health. [3]

There are many reasons that people search the Internet for health information. Here is a list of possible reasons:

1. They are told by their doctor that they have a particular health problem such as diabetes, high cholesterol, psoriasis, depression or a form of cancer and want to find out as much about the condition as possible, including options for treatment and possible long-term prognoses.
2. Someone they know – a family member, friend or colleague – has a particular health problem. Reasons for wanting more information about the problem are similar to those mentioned in point number one, above. Primary caregivers, such as parents of young children or the adult children of elderly parents, may be especially eager to learn as much as they can about a health problem that affects those they are responsible for.
3. They hear or read about a public health crisis or unusual disease and are frightened or intrigued by it. AIDS, West Nile Virus, Mad Cow Disease, Small Pox, Norfolk Virus, Sudden Infant Death Syndrome, Irritable Bowel Syndrome, diabetes, high blood pressure, Alzheimer’s Disease, autism, hormone therapy, and many other health-related conditions have been widely covered in the news media at different times in recent history and piqued widespread public interest and concern.
4. They are interested in disease or injury prevention because they are at high-risk for a particular disease or injury.
5. They are generally interested in health and wellness and the Internet provides a helpful resource for self-education. These people may be health care professionals or paraprofessionals or just “laypeople” with no particular expertise or professional interest in health care.
6. They are medical professionals trying to keep current on their chosen area of expertise. (More on this in a future column.)
Of course, the more traditional ways of finding out health information still exist and, in fact, have become more innovative. At one time not too long ago, someone wanting to research a particular disease in depth would likely go to a large library with a comprehensive medical section or specifically to a medical library (not all of which are open to the public). They would look through card catalogs and book stacks to help them find the resources that they need, which may or may not be out of date. Today, medical libraries exist on the Internet and are relatively simple to search. (Some examples are listed at the end of this article.) The Medical Library Association hosts a Web site at http://mlanet.org. It provides a “Top Ten” Most Useful Web Sites page at http://www.mlanet.org/resources/medspeak/topten.html. Search engines (e.g., Google) and Web portals (Yahoo!) are also useful places to begin a search for health-related information.

People also continue to talk to doctors, nurses and other health professionals, but there is not always sufficient time to spend with patients to address all their concerns. Also, the shock of first receiving a troubling diagnosis often interferes with further listening on the part of the patient, making research at a later date, when the patient is calmer, more desirable. Well-coordinated team treatment – such as at a comprehensive medical clinic – can be helpful as doctors, nurses, health educators, social workers, and others work together on the patient’s behalf, increasing the flow of communication and time spent on patient concerns. Still, continuing self-education can further increase knowledge and understanding.

.03 Student Assignments and Projects (return to index)

Although this section is geared toward teachers and students, the information is probably useful to anyone interested in locating and benefiting from health information online. One way to teach students about the socially beneficial aspects of the Internet is to have them create a public affairs project on the Web revolving around a particular health issue or topic of their choice. Topics can be age-specific: Teens might want to deal with problems that are most relevant to their generation. Students can work individually or in groups. Inevitably, some of them will want to research a health issue that has affected friends or family members, such as alcoholism, depression, autism, domestic violence, substance abuse, and so forth. This can help them better understand a problem that has haunted them for a long time but which they knew little about beyond the label and basic facts. Older students – e.g., college undergrads – may want to tackle topics that are more challenging. Stem-cell research, for example, has not only a clear medical and scientific component but also significant ethical aspects as well. With health information being one of the most popular genres of information that Internet users search for online, the practice of working with health information in the classroom has practical applications in the working world. Students can extend their skills into other areas of their personal and professional life and even help family members and friends who are not Internet-savvy to find information of interest to them. A useful backgrounder piece is the first column in this series on health informatics, which can be found at http://bcis.pacificu.edu/journal/2002/11/kawamoto.php.

This kind of project can teach students technical skills such as Web design and production as
well as research and critical thinking skills. It can also show them the public affairs value of the Web – a communication tool that can be used to help a special target population (what some might call “a public”) learn more about an important topic that affects it. When given the choice to choose their own health topic, students will often select something that has affected them personally in some way, either directly or indirectly. For example one student I had created a Web site about alcoholism because she was the child of an alcoholic parent. Another student created a Web site about dyslexia because of her own diagnosis only a few years previous. Still another student wrote about anorexia and other eating disorders because of how it affected friends she knew in high school. While the impetus for all these cases was personal interest, these students took that personal interest and transformed it into a presentation of potential public interest. Their motivation had a component of altruism to it: They wanted to examine a particular problem that had caused much suffering to themselves or those they knew, and provide information to others – mainly strangers – in an attempt to pre-empt or relieve further suffering. One of the benefits of letting students choose their own topic is that they can gravitate toward a topic they genuinely feel a passion for and thus will invest considerable time and energy into developing as a public affairs project.

When students create a health-related Web site, they have to ask themselves a number of key questions: Who is my primary audience and what characteristics do I need to know about them? What is the best way to communicate health information to that audience? What is the message? How do I narrow the topic down? What are the intended effects? (Cognitive, affective, behavior changes?) What information should I provide? What links should I give out? What sources should I use for information? What is the most user-appropriate way to design the site? How do I evaluate the effectiveness of the design and the veracity of the content? How do I publicize the existence of this site? And so forth. A long list of questions should precede the development of this site so that the process is purposeful, meaningful, and thoughtful. If ideas are discussed openly before the actual implementation, the teacher and other students can act as a sounding board and “advice panel” during the conceptualization of the site. Constructive criticism during and after the project has been completed is also instructive.

Students also learn to evaluate the credibility and reliability of the information they find online in the course of their research. This is a good opportunity for the teacher to discuss the breadth of health information that is available online and the importance of understanding the difference between scientific research and unsubstantiated opinions. The mass media have been inundated with false claims long before the Internet ever came into existence. The consumer has always had to be wary and critical of health claims. Students should also learn how to provide information without prescribing medical advice and how to write about research so that links and correlations do not come across as “cause and effect” relationships. Eating a high fiber diet does not cure cancer any more than eating a low fiber diet causes it. Reliable research (or reporting of research) rarely makes such narrow and absolute connections, and students need to be especially careful how they represent other people’s findings. This is good scholarship in general.

On the other hand, students should be taught to be open-minded about health information
online. So-called “alternative therapies” are often dismissed by the mainstream scientific community as being ineffective or fraudulent. This is a large and diverse category that should not be painted over with one broad brush stroke. Some of these therapies may be harmful, others harmless, and still others helpful. Suggestions for regular meditation and massage, for example, may be useful in helping someone under stress to relax and thus reduce mental and physical pain. The role of the student is not to give medical advice, so an outright recommendation should never be part of the Web site. But a student can mention that many people report relief from “X” by doing “Y” – ASK YOUR DOCTOR IF THIS IS SOMETHING YOU CAN TRY. Some physicians and mainstream hospitals have accommodated alternative therapies for their patients who want them. For example, Reiki, a “healing touch” therapeutic activity, is used by some nurses in a number of hospitals to aid in recovery. In sum, students have to use common sense, rigorous research, critical thinking, consultation with professionals and proper language when deciding how to deal with information they uncover that may fall into the category of alternative therapies.

When publicizing health information, even as a class exercise, a disclaimer should be included on the Web site saying that the information provided on the site “is for general reference purposes only and not intended to substitute for professional medical care. The information should not be used to diagnose or treat any medical conditions. If you have questions or concerns about your health, consult a qualified health professional.” On almost every professionally established health information Web site, there is a similar disclaimer. Students can get tips for wording their own disclaimer from these sites. Some are longer and more legalistic than the one above.

Students will rarely have a problem finding content for their projects. More likely, they will find too much content and will need to decide what they want to use and how to present the information. Sometimes a narrower topic is easier to work with. A “What is Mental Illness?” Web site runs the risk of being too unwieldy and convoluted. A particular illness like schizophrenia might be more manageable. Here is an actual example of a narrow topic: One student created an effective Web site on the date rape drug, Rohypnol. She also referred it by its other names (“Roofies,” “R2” and so forth) and explained what it is, how it is used, how to avoid being victimized, and what the legal ramifications were for using it as a rape drug. She included graphics that showed what it looked like so that people would be able to identify it if they came across it in the future. When the site was “ready for primetime,” she gave a presentation on the topic to her classmates, many of whom had heard of the drug but did not have the level of detailed knowledge that she provided. She offered her completed Web site to the student health service on campus for use as an educational resource. This is an example of a public service Web site that served to increase awareness of the drug to her classmates and perhaps contributed to more vigilance and caution in their future behavior.

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Getting students involved in health informatics can teach them many different things: technical and aesthetic skills; usability and interface design skills; research; critical thinking; information architecture and organization; public service communication; not to mention a considerable gain
in knowledge about their chosen subject matter. It gets them to see the community-oriented, educational and public service applications of the Web, and encourages students to share (not sell) helpful information with others. Not surprisingly, students can also be personally affected by their own increase in knowledge. The student with the alcoholic parent, for example, might learn information about the disease that helps put a personal history into a medical and psychological context, perhaps softening perceptions and increasing empathy where there was once mostly anger and pain. One disabled student made a presentation to her classmates that explained what it was like to have neurological disorder that affected her motor skill coordination. She told them that typing on a keyboard for her was as difficult as it would be for them if they were wearing gardening gloves. She then discussed the role of enabling technologies that have helped her as a student. The end-product of most of these projects have been amazing and sometimes quite moving.

The search for health information online has never been easier and can be fun to do. Teachers should provide students with a list of places to start and help them evaluate the search results. The following links are a small number of gateways to an abundance of health-related information. Many more sources are available, but this is a good place to begin:

Short List of Health Information Online

1. **CHID Online**

   **Combined Health Information Database**

   **URL:** [http://chid.nih.gov/welcome/welcome.html](http://chid.nih.gov/welcome/welcome.html)

   Description from CHID’s Web site: CHID is a bibliographic database produced by health-related agencies of the Federal Government. This database provides titles, abstracts, and availability information for health information and health education resources. CHID lists a wealth of health promotion and education materials and program descriptions that are not indexed elsewhere. New records are added quarterly and current listings are checked regularly to help ensure that entries are up to date and still available from their original sources. Some older records are retained for archival purposes. CHID is updated four times a year. The updated database is available at the end of these months: January, April, July, and October.

2. **healthfinder®**

   **URL:** [http://www.healthfinder.gov](http://www.healthfinder.gov)

   Description from Healthfinder’s Web site: healthfinder is an award-winning Federal Web site, developed by the U.S. Department of Health and Human Services together with other Federal agencies. Since 1997, healthfinder has been recognized as a key resource for finding the best government and nonprofit health and human services information on the Internet. healthfinder links to carefully selected information and Web sites from over 1,800 health-related organizations.

3. **Reuters Health**

   **URL:** [http://www.reutershealth.com](http://www.reutershealth.com)

   Description from Reuters Health Web site: Reuters Health (RH) is the world’s leading
provider of medical and healthcare news. Reuters Health news services are internationally recognized as unbiased, authoritative, timely and dependable, with the reputation for quality that one expects from a Reuters company.

4. **KidsHealth®**
   
   URL: http://www.kidshealth.org
   
   Description from KidsHealth Web site: KidsHealth is the largest and most visited site on the Web providing doctor-approved health information about children from before birth through adolescence. Created by The Nemours Foundation’s Center for Children’s Health Media, the award-winning KidsHealth provides families with accurate, up-to-date, and jargon-free health information they can use. KidsHealth has been on the Web since 1995.

5. **MayoClinic.com**
   
   URL: http://www.mayoclinic.com
   
   Description from MayoClinic.com Web site: Our mission is to empower people to manage their health. We accomplish this by providing useful and up-to-date information and tools that reflect the expertise and standard of excellence of Mayo Clinic. A team of Web content producers, editors, multimedia and graphics producers, interactive developers, health educators, nurses, doctors, and scientists produces this site. We give you access to the experience and knowledge of the more than 2,000 physicians and scientists of Mayo Clinic.

.05 **NOTES** (return to index)


NOTE: The information provided on this site is for general reference purposes only and not intended to substitute for professional medical care. The information should not be used to diagnose or treat any medical conditions. If you have questions or concerns about your health, consult a qualified health professional.

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2 THOUGHTS ON “TEACHING STUDENTS ABOUT CYBERHEALTH INFORMATION”

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pastillas chinas
on January 29, 2014 at 11:04 PM said:

Great post. I was checking continuously this blog and I’m impressed!

Very useful information specifically the last part 😊 I care for such infoo much. I was looking for this particular information for a long time. Thank you and best of luck.

http://www.frutaplantatips.com/store/

on February 2, 2014 at 3:40 AM said:

Me parece interesante que en Internet existan este tipo de tratamientos en cuanto a lo que muchas y muchos necesitamos saber acerca de estos temas tan importantes.

Este tipo de documentos online se notan que tienen un grado de exigencia importante en su investigación, donde cuidado en su tratamiento para los lectores interesados en los temas correspondientes y he podido quedar muy bien informada con este artículo. Es de recomendar para las personas interesadas sobre fruta planta, las pastillas chinas y bajar peso.