

## **Web 2.0 and Podcasting: Implications for Health Care**

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### **Introduction**

Almost 12 years ago, I wrote an article for the *Health Policy Newsletter* called “Health Care and the Iway.”<sup>1,2</sup> In 1995, the World Wide Web was not yet a household concept, early adopters used Lynx or Mosaic, not Internet Explorer or Firefox, and used telephone dial-up not broadband (cable or DSL) to access the Internet from home. We’ve since survived the “dot com” crash, geared up for HIPAA, and can’t live without our email, cell phones, Blackberries or instant messaging. The Web (1.0) has become a marketing must for health care providers, an important resource for health care consumers, and a commercial success.

Web 2.0 is the “participatory” or “read/write” Web, emphasizing tools and platforms that enable the user to talk back. Blogs, wikis, podcasts, and now vidcasts (video podcasts) account for an increasingly important segment of the Web. This article delves further into podcasting and its potential impact on health care.

### **Podcasting – What is it?**

Podcasting involves the recording of audio programs that are then made available for download from a website. A variation on the older Internet radio websites, which streamed audio content, podcasts allow the user to time- and space-shift the program. That is, users can download and play the program on a portable digital audio player any time and any place. Although inspired by the iPod, you don't have to have an iPod to listen to or make podcasts. You can listen to them right on your computer or download them to any digital music player. Listening rather than watching or reading allows the user to learn while walking, exercising, riding public transit or driving.

Podcasting is the fastest growing Web 2.0 technology, probably because of its inherent simplicity and ease of use. Some say podcasting will become a mainstream application like the TiVo video recorders—in fact, podcasting is kind of like TiVo for radio. Podcasting is exceeding the growth rate of the DVD, which holds the record as the fastest growing consumer entertainment technology.

### **Podcasting – Who is using it?**

Tech savvy amateurs, including many bloggers, were the first to podcast. Education institutions of all sorts are beginning to make course content available as podcasts. Professional broadcasters and syndicated radio shows are now making their content available as podcasts. NPR’s “In the Media” was one of the first to appear. Apple was late to the game but gave podcasting a big boost about a year ago when they began to add podcasts to their iTunes music store directory. Now a search on iTunes lists almost 5,000 educational podcasts.

### **Podcasting – Three Scenarios and Implications**

### Student

John had to leave his pharmacology class early to attend to some urgent personal business, but he knew he could catch his professor's podcast the next morning. That night, he "docked" his iPod so it could charge its batteries and, while he slept, his iTunes "podcatcher" downloaded the previous day's lectures. In the morning, he grabbed his iPod and listened to the lecture he missed while riding the bus to school. Hearing the banter and questions from students and his professor's animated answers, he arrived at school feeling well prepared for the next lecture.

Jefferson is evaluating several commercial products that will capture lecture audio, computer displays, and even video and automatically link the podcast content to the course site in our Blackboard course management system (<http://pulse.jefferson.edu>). Several universities including Duke, Stanford, UC Berkeley and the University of Michigan are using *iTunes U*, a free service from Apple, to distribute course podcasts to their students and a subset of free podcasts to the public.

### Clinician

Dr. Smith, a primary care physician, catches up with his continuing medical education (CME) while riding the train. He has a 15-minute walk to the station and has been using his smart phone/PDA lately instead of lugging around his heavy laptop computer. His phone has mp3 player software and can easily store 10 hours of audio programs. While recharging his phone last night, it automatically downloaded several CME programs from his med school's alumni site. This morning he decided to review some of the latest thinking on neurological disorders and appreciated that his video phone was able to display the PowerPoint diagrams that accompanied the audio lecture.

Podcasting seems to be a natural for continuing education. Numerous CE sites are becoming available for the mobile practitioner (<http://www.cmepodcasting.com/>, <http://nursingspectrum.netstation.us/>, <http://www.med.nyu.edu/podcasting/>).

### Patient

Martha, a 55-year-old, mildly obese mother of four, was waiting in her surgeon's office for her last consult with him before undergoing an angioplasty procedure. The receptionist gave her a video iPod and began to instruct her, but Martha already owned an iPod and needed little help. She learned what to expect before, during and after the procedure. Some of the questions she had jotted down to ask her surgeon were answered during the video presentation. After a brief consult with her surgeon to help clarify her remaining questions, she was allowed to take the iPod home to learn more about her risk factors and strategies for reducing them.

One of the first web sites to provide extensive audio and video podcasts for patients is the Cardiovascular Multimedia Information Network of the Arizona Heart Institute (<http://cvmd.org/>). Its creator, cardiovascular surgeon Dr. Grayson Wheatley<sup>3</sup> (Jefferson Medical College, Class of 1994), has gained a lot of publicity as the first physician to replace magazines in his waiting room with video iPods.

Who pays for all of these “free” podcast subscriptions? Many, of course, are underwritten by educational institutions and big media, but many more are supported by amateurs with something to say and startup companies with venture capital. Like Web 1.0, Web 2.0’s podcasting is quickly becoming a marketing opportunity for health care providers and the pharmaceutical industry, and an increasingly important educational resource for health care students and consumers. Although podcasting promises to be the ultimate targeted marketing outlet, the advertisers have been slow to build the mechanism to help “monetize” podcasts and make them a commercial success. Stay tuned.

### **Podcasting – Learn More**

Learn more about podcasting and other e-learning technologies by subscribing to “Rod’s Pulse Podcast” (<http://www.rodspulsepodcast.com>).<sup>4</sup> The web site is a blog with “show notes” for each episode and instructions for subscribing using the various podcatchers. Comments and feedback are welcome.

### **References and Notes**

1. Murray, R.B. (1995). Health care and the "Iway". *Health Policy Newsletter*. 1995;8(1): Article 2. [<http://jdc.jefferson.edu/hpn/vol8/iss1/2>]
2. “Iway”, a synonym for information highway coined by Bob Metcalfe, inventor of Ethernet. *InfoWorld*. 1994;16:63(1).
3. Listen to my interview of Dr. Wheatley at <http://rod4jefferson.blogspot.com/2006/05/rpp-16-interview-grayson-wheatley-md.html>.
4. Disclosure: this is a shameless plug for the author’s own podcast.