The Internet for Dentists

VIDEO ON THE INTERNET

We are all accustomed to watching videos using our VCR and on television. The Internet will take this process one step further by offering video on demand. With new technology, the quality of online video is improving; however, it still does not rival television. Advances in fibreoptic lines and high-speed Internet connections are contributing to the push for video online. Faster Internet speeds are also making it possible to view digital video on your computer, in real time.

Video on demand means that you can request or watch a particular show or course whenever you want. Eventually, you won't have to drive to the video store or order continuing education tapes from around the world. The applications of video on demand are endless — online continuing education, announcements for your patients and communication in general. Imagine if you had a demonstration of a bridge preparation on the Internet where you could direct your patients and educate them about their needs.

There are two basic ways to watch video using the Internet — downloading and streaming. Downloading means the end user requests that a digital video be sent from someone else's computer to their own, via the Internet. The video must be completely downloaded before it can be viewed. However, in the last few years a process called streaming has been gaining popularity. Video streaming was devel-oped so the information can be viewed as it comes into the computer. Unlike downloading, streaming video is only temporarily stored on your computer and is not available for viewing once you have logged off the Internet. The advantage of streaming is the speed at which you can watch and hear the video. Video streaming works a lot like TV but the process is completely digital, allowing the viewer to choose the content and the time of the program. In contrast to streaming, videos that are downloaded stay on your computer and can be watched at any time regardless of whether or not you are on the Internet. In both cases, the Internet offers video on demand and allows end users to access it whenever they want.

Traditional television broadcasts work efficiently because they deliver one message at the same time to many viewers. With the Internet, video delivery is less controllable, since bandwidth can become overrun with traffic. Some Internet video delivery companies have attempted to place copies on many different sites to help alleviate the problem of high traffic. The end user can then go to the Internet site that is closest and least busy to receive the digital video.

The main limitation of video on demand is what is termed "the last mile." The Internet is a vast array of fibreoptics, copper, and wireless connections. The speed factor of the Internet is limited by the slowest portion of this connection. At present the connection from your house to the Internet is a bottleneck for data transfer. If you had pure fibreoptic connections to your home, you would be able to beam 100 two-hour videos over the Internet in two seconds. The data on the main backbone of the Internet is travelling at 38 gigabytes per second (*PC World*, March 1999, p. 164).

To see how video streaming works on the Internet you must download a computer program and follow a simple set-up procedure. The most common program used for video streaming is called "RealPlayer" (http://www.real.com). The RealPlayer program works best if you have a high-speed Internet connection; however, you can still see and hear a lot of information with a 56K modem. It is not recommended to try video streaming with a slower connection.

To download RealPlayer (video streaming viewer):

1. Log onto the Internet and go to http://www.real.com.
2. Check the computer requirements to run RealPlayer at this site.
3. Click the download button. Be sure to write down the location where the file is saved on your hard drive.
4. Locate and launch the program from your computer's hard drive.
5. Follow the instructions.

You can try RealPlayer basic for free while the most up-to-date player will cost you a moderate amount money.

RealPlayer video streaming samples on the Internet:

- **http://www.cda-adc.ca/jcda** — Click on the multimedia center to see a five-minute video entitled "The Secrets of a Healthy Smile."
- **http://idf.stat.com/ce/** — This forum offers a number of video streaming examples. To learn more about the possible uses of video, watch the RealPlayer version of "Integrating Video in Your Dental Office." This is a fantastic lecture about computer technology. A number of other video examples are also on this site.

RealPlayer will help you connect to a great number of news and general interest sites. It's not too difficult to get this add-on feature up and running on your Internet connection!

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