

# Dentistry on the Web

As business use of the Internet rises, so does interest in practice Web sites and business-to-business services.



By Dr. Larry Emmott

The Internet will have a more profound effect on the world we live in than any other technological advance of the last century—more than cars, planes, electronics, telecommunications, and all the rest. The Internet will affect our lives in ways we cannot yet even imagine.

It's not just for nerds anymore. A recent consumer survey found that in December 2002, 72% of the U.S. population was going online at least once a month. Plus, Internet use is rising among all segments of the population, including minorities, lower-income households, and, especially, women. One survey found that young mothers at home with children spend more time online and less time watching television now than in the past.

## Business use growing

Business use of the Internet is growing, too. Among the trends we're seeing are the following:

- Computer and Internet use is ubiquitous among young (college-age) adults. And, as these Internet users move into the working world (and have money to spend), using the Internet for business and other purposes will be as natural for them as picking up a phone or turning on the TV.
- High-speed or broadband connections are used by about one-third (34%) of U.S. Internet users, and, based on current trends, broadband will surpass the slower dial-up or narrow band in 2005. (See "Broadband vs. dial-up" sidebar on page 52.)
- Consumers using the Internet are two to three times more likely to take action on what they find than consumers who don't use it. In other words, a dental shopper who finds your office from a Web page is two to three times more likely to make an appointment with you than is a shopper who finds you in the phone book.

As the Web's popularity increases, we are just beginning to understand how the Internet will be used in the future. In dentistry, two areas of great interest associated with the Internet are office Web sites and business-to-business (B-to-B) uses.

## Practice Web sites

The percentage of doctors with practice Web sites has doubled since 1999, when 8% of responding U.S. dentists reported they had Web sites for their practices, to 17% with Web sites in 2001, according to surveys by *Dental Products Report* and its sister publication, *Dental Practice Report*.<sup>1</sup>

And even though practice Web sites still are in the minority among dentists, now may be the time to



Dr. Kent Smith of 21st Century Dental in Irving, Texas, attributes much of his practice's new business to its Web site: [www.21stcenturydental.com](http://www.21stcenturydental.com). The site takes viewers on a tour of its facilities. The home page (above) features changing photos of relaxing reception rooms and well-equipped operatories. The site includes photos and text about the practice's use of technology, including lasers, air abrasion, and digital radiography. It also shows its relaxing "spa" amenities.

think about planning one, in view of the growing business use of the Internet.

Many dental Web pioneers who jumped into office Web sites early on did so with little clear understanding of what they were doing, and they report a wide range of experiences with their sites. Many, if not most, say their current Web dental sites have had little impact on their practices' success. However, demographic trends clearly indicate that Web sites will be significant in the future. Now is the time to start planning a Web site. Here are some tips.

**Planning tips.** There are two key ways to develop an office Web site:

- Use a generic Web site, a kind of Web-in-a-box. There are many good examples of these types of sites. They can be customized to your office, and they are easy and inexpensive to start. However, they tend to have a similar "cookie-cutter" look.
- Custom build a Web site just for your office. These sites tend to be more expensive, but they also are much more sophisticated, as they are designed to reflect the image of the practice.

The differences in these two approaches is similar to the differences between a mass-produced tract home and a custom-built, one-of-a-kind home. And the Internet trend tends to be toward building customized sites, according to Tim Kelley, one of the co-founders of TNT Dental ([www.tntdental.com](http://www.tntdental.com)), a Web-site development company specializing in the dental industry.

"In the past, dentists were content to have anything online," Kelley said. "Now dentists are looking for a more sophisticated site that reflects the unique nature of the practice."

TNT Dental works with dentists first to find out what they want their Web sites to achieve, and then to develop a look and feel to accomplish that goal.

It isn't enough just to have a well-designed site, though. Web sites are not like a field of dreams. If you build your Web site, they will not necessarily come.

To be successful, you must attract people to the site.

One of TNT's most successful clients is Dr. Kent Smith, a high-tech dentist based in Irving, Texas. In the last three years, Dr. Smith has been able to attribute more than \$200,000 of new business to patients who came to the office as a direct result of his site: [www.21stcenturydental.com](http://www.21stcenturydental.com) (shown above).

"I had a Web page before that I did on my own, but it never attracted patients," Dr. Smith said. "The big change came when I decided to use a professional Web-site developer. Not only did they improve the look and feel of the site, but they also knew all the techniques to get people to the site."

Dr. Smith has this advice for dentists looking to start a Web page or to improve an existing site:

- Get professional advice.
- Create lots of content; engage the viewer.
- Collect and update patient e-mail addresses.
- Collect digital photos of patients and staff.

Creating a Web site may not be enough. A new trend noticed by TNT is the development of Web teams. This is the aggregation of different Web-based services from various subcontractors into a single site. For example, a team site could offer patient education from one source; online patient-chart and appointment information from another source; and dynamic, moving content, such as background music, or constantly changing office views from a third source. The Web site's "general contractor" then brings all of these Web-based services together into a single site.

Finally, if you're planning a Web site, look into choosing and registering a domain name (see the sidebar "Domain names," page 54).

Another handy guide for Web site planning is the ADA booklet, *Build it: a guide to building your dental practice Web site*. Published in 2002, it is available to download for free on the Internet at [www.ada.org/goto/buildit](http://www.ada.org/goto/buildit).

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# Broadband vs. dial-up

Broadband refers to telecommunications in which a wide "band" of frequencies is available to transmit information. The term, however, has several definitions. It is most commonly used to refer to any high-speed

Internet connection.

While dial-up modems were the only way to go not too long ago, many Internet surfers have made the switch to broadband because of its speed and other ben-

efits. The following is a quick look at some of today's more popular choices.

**DIAL-UP.** Most Internet users still connect and disconnect with a dial-up modem using a local phone line. Dial-up has two significant problems: The user has to dial up to make a connection; and once online, service is slow. It takes time and ef-

fort to make the connection, plus it ties up a phone line.

Unlike dial-up access, broadband connections are always on. Since broadband stays on, it is quicker and more convenient to go online with broadband than with a dial-up modem. Another plus is that broadband does not tie up the user's phone line, and the high-speed connection makes the Internet much more user-friendly. A Web page that might take 30 seconds to download with dial-up could load in less than a second with a broadband connection.

**DSL.** A growing number of Internet users are switching to the DSL (digital subscriber line) form of broadband connection. DSL technology brings high-bandwidth information to homes and small businesses over ordinary copper telephone lines. If your home or small practice is close enough to a telephone company central office that offers DSL service, you may be able to receive data at rates up to 8 megabits per second, enabling continuous transmission of motion video, audio, and even 3-D effects. Drawbacks to DSL include its limited areas of availability, and slower Internet speeds for those who can get the service but are not located real close to the providing telephone company's central office.

**CABLE MODEM.** Another Internet choice is a cable modem. While traditional dial-up modems provide online access through the public telephone network at up to 56 kilobits (equal to 56,000 bits per second), a cable modem gives users high-speed Internet access through a cable TV network at a much higher speed, sometimes about 20 times faster. Cable modems typically connect to computers through a standard 10Base-T Ethernet interface. The drawback here is that the speed can drop drastically during peak usage times. In other words, when more users use the cable modem simultaneously, the slower its connection speed becomes.

**T1.** T1 lines are more expensive than the other options discussed, but they can carry roughly 60 times more data than a typical residential modem. If your practice has a T1 line, it means that the phone company has brought a fiberoptic line into the practice. If the line is being used for telephone conversations, it plugs into the practice's phone system. If it is carrying data, it plugs into the network's router.

While many Internet options exist, those with high-speed connections appear to be on the rise with more doctors and users making the switch to them.

**NOTE:** Some Web sites require a high-speed connection to view all of the material available, especially movie clips and video that may require WindowsMediaPlayer, Flash Player, and RealMediaPlayerBasic. Visitors to the Multimedia Reports section of DPR's Web site ([www.dentalproducts.net](http://www.dentalproducts.net)) are notified that the section generally requires a high-speed, broadband Internet connection, though a 56K dial-up modem may suffice. Although some of the material may be viewed with a dial-up modem, it is much faster to do so with broadband.

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### B-to-B services

What's your best Internet experience ever? What do you like best about doing business online? Maybe it's access to your account information 24/7. Maybe it's returning to a Web site that remembers all

of your personal information and preferences. Maybe it's the ability to comparison shop among stores from all across the country. Or maybe it's the ability to locate hard-to-find items with a simple electronic search. For these reasons and many more, online B-to-B activity is increasing rapidly.

Anything you are doing now with a

piece of paper, you will be doing in the future electronically, online. This will include lab slips, insurance claims, bill payments, accounting reports, bank statements, referrals, patient forms, financing, and ordering supplies. Here are some scenarios:

**Financial credit.** One great example of B-to-B is the online patient credit application

from CareCredit. (CareCredit offers practices healthcare financing plans that assist patients in paying for desired procedures.) With the CareCredit service, patients can apply for financing online. If you have Internet access in your treatment room, patients could even apply for credit while sitting in the dental chair. You can help patients or, if they would prefer some privacy, they can fill out the application by themselves or at home. Wherever or however an application is done, the company considers it and can approve the application in seconds.

**Insurance communications.** One of the biggest time-wasters in many dental offices is insurance communications. Office staff can spend hours of phone time every week on hold, checking on eligibility, checking coverage, or investigating lost or denied claims. Also sending attachments like x-rays, photos, or probings takes time, costs money, and slows down payment.

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## Domain names

A Web site domain is the name of a site, as *www.21stcenturydental.com*. A domain can be nearly anything followed by the familiar dot-com (.com) extension. However, there are other extensions that could be used for a dental office, including dot biz. And there are plans for dot pro.

It is easy and inexpensive to register and own a domain name. The fee to register a Web domain is only about \$30 a year, and names can often be had for less. There are many online registration services; one of the leaders is Network Solutions at *www.networksolutions.com*.

If you don't currently own a Web domain, start by deciding on a unique name. Keep the name simple and have it reflect the name of the doctor or the practice. For example, *dr-peterson.com* would be a much better name than *greatsmilesare-waitingforyou.com*. Once you have a desired name, go to Network Solutions and check to see if it is available. If so, you can register and own it in a matter of minutes.

You are not limited to one domain. You can register many similar domain names and have them all point to the one main site with the domain name you most prefer.

You should own your own domains. Sometimes the Web development company will keep the domain in its own name. To see who owns any Web domain, go to Network Solutions and use the "WHOIS" search feature.

**A final note:** If you ever need to move your Web site from one hosting service to another, it will be much easier and less expensive if you own the domain name.

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However, there is no reason all this can't be done online, and companies are now creating Web sites to accept claims, accept and store electronic attachments, and check for eligibility. These services currently are fragmented and quality is inconsistent. There is no central eligibility resource, and many insurers still won't accept electronic attachments. However, all indications are that these services will become universal in the next three years.

**Online lab prescriptions.** Another B-to-B service we will likely see in the next year is online lab prescriptions. If you ever have used an Internet travel service to buy an airline ticket online, you have an idea of what the ideal lab service might be like.

When you first log on, the system will recognize you and automatically know all the basic details about you, including your address, phone number, and account number. It also will know your preferences on materials, design, and technicians.

You then will be prompted to fill in details using a decision tree. For example, the first decision might be metal or non-metal. Your usual preference already would be chosen. However, if you wanted something different, you could choose it.

Let's say you choose non-metal. Your next choice would be a list of non-metal materials. These might include belleglass, Procera, Sinfony, and Empress. Again, your usual preference would be highlighted or you could choose another option.

At this point, the lab could launch a pop-up window to introduce a new material or technique. The dentist could ignore the window or follow the links to learn more about the material. This could lead to prep designs, photos, testimonials, and a chance to sign up for an upcoming technique course using the material. When you submit the Rx, the lab will acknowledge receipt and confirm a delivery date.

**D-to-D communications.** But service won't just be B-to-B. In the future, we will use the Internet for doctor-to-doctor (D-to-D) communications. If a referral is needed in the future, you will make an appointment at the specialist's office via the Internet and inform the specialist with an e-mail.

Then all of the patient's information will be transferred to a secure Internet site. The specialist downloads the patient's name and personal data (such as a phone number), and receives all diagnostic information, including x-rays, photos, and treatment plans, as well as an updated health history, treatment history, and any notes from the general dentist. The specialist could even get the insurance and payment information.

What has been your best Internet experience? How can you provide a similar experience for your patients? The Internet will affect our lives in ways we cannot yet even imagine—for the future is coming, and it will be amazing! **DPR**

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*nology seminars to selected dentists in his Phoenix office (the next one is Oct. 3-4). At these seminars you will receive personalized advice on setting up your office to maximize your high-tech future. Topics include digital radiology, cosmetic imaging, and treatment room design. To find out more, check out Dr. Emmott's Web site: [www.dr.larryemmott.com](http://www.dr.larryemmott.com),*

*or call him at 602-279-1641.*

**Reference**

1. The editors. More doctors using Internet for personal, professional information. *Dental Products Report* 2001;35(12):38. (Surveys featured include the March 2001 Dental Products Report/Dental Practice Report Dental Technology Census survey (B) and the March 1997, 1998, and 1999 Technology Census surveys.

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