Surf the Web, see the world

There is something still largely missing on the World Wide Web. Something obvious

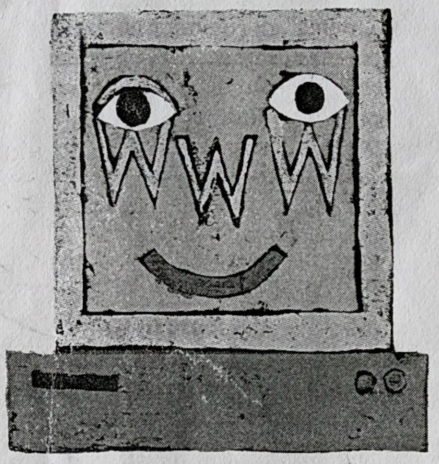
THE Web puts libraries-full of published information at your fingertips. And this information is gathered in the same time-honoured ways that information has always been gathered: by sending people out to observe, to ask and to report. But that is no longer the only way. With the communications capabilities of the Internet, plus cheap video cameras and other observation equipment, it is now also possible to watch what happens in the world as it happens.

Just watching was one of the first uses of the Web. Back in 1993, when the Web was still in its infancy, hackers at the Cambridge Computer Laboratory on the English Fens decided that, rather than walk down the hall to see if there was any coffee in the coffee pot, they would prefer to come up with new interfaces between computer networks and video equipment. So they created a new labour-saving device. Each minute a video camera took a picture of the lab coffee pot and posted it on to a Web site, so that anybody in the lab could see what was brewing with the click of a mouse. This cute hack was quickly forgotten in the rush to convert magazines, newspapers, television and the rest of the media world to the new forms of distribution that the Web offered. But the basic idea behind that Web-sighted Cambridge coffee machine is now once again back in favour.

Different strokes for different folks

Similar interfaces can be used to answer a variety of useful questions. What is the traffic like on the drive back home? Well, if you live in Atlanta in Georgia you can inspect the freeways from live cameras mounted at various junctions along it (see www.georgia-traveler.com/traffic). What are your chances of finding a parking space at work? If you are on the staff of East Carolina University, you could check eastnet.educ.ecu.edu/cameras/ to make sure that you will have a place when you arrive. Is everything all right back at the house? Kirk McKusik, a computer pioneer based in Berkeley, California, does not actually have a camera in his house (or if he does, he does not advertise the fact), but he has put sensors online throughout the premises. So just by clicking on mckusick.com:451, he can check that his garden is being watered, that his wine cellar is still cool and his hot tub is hot.

There are now hundreds, if not thousands, of cameras connected to the Internet. Some are voyeuristic, most famously the "JenniCam" at www.boudoir.org, which records whatever happens in Jenni's bedroom. Others show far away places, like the Davis Station in the wastes of Antarctica (see footnote for address too long to fit in the text*) or the Western Wall in Jerusalem (www.thewall.org). For bird-watchers, OwlCam follows a family of owls (again, see footnote†). There are snow cams for office-bound skiers and surf cams for stay-at-home beach bums. So far, most of these services are offered for nothing, and for no other reason than that somebody thought the world should see what was happening. They are typically flaky, and often pointless. Nobody, for instance, really wants to see the view from an office window but that does not deter some from presenting it.



Webcasting could still become the snap photography of the next decade and confound the cynics who sneer that, although the Internet has given people their own printing press, it has not given them much opportunity to create stuff that anybody else wants to watch. But a lesson from the WebCams is that, whatever happens, private Webcasting will continue to boom because people still want to keep an eye on their loved ones, their possessions, or just the conveniences that make a difference to their everyday lives, like the car park at work.

Inevitably, the growth of amateur Webcasting will further blur the indistinct boundary between public and private. For the time being, at least, the Web has no notion of local; anything public is global. For a demonstration of this fact, if any were needed, visit the Web site www.policescanner.com, which tunes into emergency radio in American cities and Webcasts to the world whatever is being said among policemen, ambulancemen, firemen and air-traffic controllers.

Through passwords and the like, the technology of the Internet should be able to provide privacy for the Webcasts of those who want it. However, the semi-privacy now afforded by locality will be harder to replicate. It is obvious that people in a public square can watch each other. But with WebCams other, more distant people—including local policemen and foreign spies or missile commanders—can watch too. Does that make the square any more or less public? Does it matter? What happens, for instance, when a country is at war?

While the high- and strategic-minded thrash out those questions, more commercially minded folk are already trying to incorporate live links into their Web sales pitches. Seeing what is happening as its happens has a powerful impact. If the weather is good, a WebCam makes it even harder to resist a trip to the beach. Such entrepreneurial companies as New York's SiteBridge are building software that can create live video and audio links into Web catalogues so that a shopper can click open a conversation with a real-life salesman to ask advice, or just to see more of the product.

Meanwhile, back in the lab that started it all, the coffee machine at Cambridge is launching hackers into yet another new direction of research (see www.orl.co.uk/jbpn/cgi-bin/coffee). The original coffee pot has been replaced by a "highly advanced multiple beverage dispenser" which brews different drinks on demand. So there is no pot for a WebCam to watch. But room remains for hacking. Members of the Cambridge laboratory now wear "Active Badges", each of which identifies the wearer to several local machines by sending out an infrared signal. Click on a button on the badge as you approach the beverage dispenser and, hey presto, the machine prepares you a cupful of your favourite brew. It is ready and waiting for you when you put your cup under the spout. For some things at least, having the Web watch you may prove even easier than you watching it.

*www.antdiv.gov.au/aad/exop/sfo/davis/video.html
†members.aol.com/owlbox/owlhome.htm