

## The Internet Needs Policing

**David Talbot**

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*There are basic problems in the fundamental design of the Internet. Originally intended as a simple communications network, the Internet has grown to include complicated new technology. The addition of this technology has resulted in more opportunities for malicious attacks. Security holes have been filled with software patches, but there are now so many different patches that it is almost impossible to keep track of them all. The focus on keeping the Internet safe for everyone has taken time away from the creation of innovative new features and applications. A better, safer, more secure global network is needed.*

The Internet has wrought wonders: e-commerce has flourished, and e-mail has become a ubiquitous means of communication. Almost one billion people now use the Internet, and critical industries like banking increasingly rely on it. At the same time, the Internet's shortcomings have resulted in plunging security and a decreased ability to accommodate new technologies. "We are at an inflection point, a revolution

David Talbot, "The Internet Is Broken," *Technology Review*, December–January 2005–2006, pp. 63–65, 67–69. © 2005–2006 by the Association of Alumni and Alumnae of MIT. Reproduced by permission.

point,” [Internet elder statesman and onetime chief protocol architect David] Clark . . . argues. And he delivers a strikingly pessimistic assessment of where the Internet will end up without dramatic intervention. “We might just be at the point where the utility of the Internet stalls—and perhaps turns downward.”

Indeed, for the average user, the Internet these days all too often resembles New York’s Times Square in the 1980s. It was exciting and vibrant, but you made sure to keep your head down, lest you be offered drugs, robbed, or harangued by the insane. Times Square has been cleaned up, but the Internet keeps getting worse, both at the user’s level, and—in the view of Clark and others—deep within its architecture. Over the years, as Internet applications proliferated—wireless devices, peer-to-peer file-sharing, telephony—companies and network engineers came up with ingenious and expedient patches, plugs, and workarounds. The result is that the originally simple communications technology has become a complex and convoluted affair. For all of the Internet’s wonders, it is also difficult to manage and more fragile with each passing day.

### **A New Internet?**

That’s why Clark argues that it’s time to rethink the Internet’s basic architecture, to potentially start over with a fresh design—and equally important, with a plausible strategy for proving the design’s viability, so that it stands a chance of implementation. “It’s not as if there is some killer technology at the protocol or network level that we somehow failed to include,” says Clark. “We need to take all the technologies we already know and fit them together so that we get a different overall system. This is not about building a technology innovation that changes the world but about architecture—pulling the pieces together in a different way to achieve high-level objectives.”