

By **BRET SWANSON**

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With deflation under control, the case for a U.S. economic comeback gets stronger every day. But the conventional wisdom is that two of our most important and hardest hit sectors, technology and telecom, have so much capacity and so little confidence that it will be many years before they return to health.

Telecom investment is down 75% since 2000, there have been more than 1,000 telecom bankruptcies, a nine-year low in venture capital investments, and a 28-year low in initial public offerings. It will take time to climb out of the deep technology hole. But there is evidence that we are climbing faster than most people think.

Despite the Federal Communications Commission's best efforts, the cable TV and Bell telephone companies signed up 1.9 million new residential broadband users in the first quarter of the year, bringing the total to 19 million. Then in May three of the Bell telephone companies announced an agreement on new standards for extending high capacity optical fiber closer to homes and businesses. By now we should be passing Peter Huber's "tipping point" of 20 million broadband connections – a rough projection of critical mass that will spark the next flurry of innovation on the Web.

Just last week, Microsoft and Apple introduced new products that add voice and video capabilities to their popular instant messaging applications. The offerings are somewhat crude today, but they promise to turn computers into fully capable video-phones. Microsoft has spent an estimated \$500 million building out its online gaming infrastructure. Its Xbox Live network, which now boasts 550,000 subscribers after seven months of operation, and Sony's Playstation network, let teenagers and teenagers-at-heart play basketball,

race cars, and hunt for three-dimensional terrorists with virtual rivals across town or across the globe.

Soon inexpensive but high-resolution "webcams," built with cheap digital video chips from Foveon, will proliferate to every PC, laptop, Xbox, PlayStation, mobile phone, ATM, baby nursery and auto bumper. Digital cameras will cover most angles of most amateur athletic, educational, theatrical, and family events. The phenomenon of informal, real-time journalism known as "blogging" will morph into video-blogging.

Sensing the new visual orientation of the Net, Google increasingly focuses on the difficult task of finding and sorting images. High quality video, however, needs at least a thousand times more bandwidth than voice or text, requiring robust broadband links. In Korea, high-definition movies and educational videos over the Net are a reality, while exchanging mere still-photos in the U.S. often results in frustrating waits and return-to-sender messages. When instant messaging, e-mail, and simple websites graduate to video-mail and full-motion news and entertainment, the result will be a new surge of Internet traffic that the current network cannot accommodate.

The FCC can't stop the Internet. But they can slow it down

A new analysis by my colleagues George Gilder and Charlie Burger shows how such an Internet traffic spike would benefit America's technology industries. In 1995 and 1996, the introduction of the Netscape web browser and the popularization

of e-mail caused Internet traffic to leap a hundredfold over two years, spawning the late-'90s boom. This data traffic spike occurred before either wired or wireless broadband emerged. Over the next seven years Internet traffic growth slowed to just 100% per year. But now, the tipping point of broadband use and new inexpensive camera technologies are making investments in rich-media applications and services a reasonable bet.

Video-mail and full-motion news and entertainment portend an Internet surge

Not even FCC Commissioner Kevin Martin can stop this second coming of the Internet. But he can slow it down. Unfortunately, in exchange for first steps toward deregulation of broadband data networks, the FCC will announce next week the massive re-regulation of the nation's voice networks. With the telecom realm already an attorney's godsend, continued legal wrangling could delay for several years the hundreds of billions of dollars of new telecom investment that will be needed to consummate the new video-friendly Net.

At a time when the once-distinct voice and data networks are merging, when it costs no more to call across country than across the street, the re-regulation of voice is an inexplicable black mark on what should be an Internet revival.

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