

JANUARY 11, 2005

VIEWPOINT

By Greg Blonder

America Needs Unchained Spectrum

Misguided regulations of the airwaves are thwarting precious opportunities to innovate and create so-far undreamed of services

Good is the enemy of great. The risk we venture capitalists fear most is not the failed investment, nor the modest success, but the lost opportunity. Ten good deals in the wrong market will never do as well as one in the right market. And venture capitalists who can't latch onto rising stars have to find another line of work.

Americans need to develop a similar fear of opportunities lost to a lack of innovation. It should be a national priority. If we fail to reinvigorate the country's engines of innovation, I worry that the balance of innovative economic power will shift more or less permanently toward Asia.

NO LICENSE REQUIRED. Take the Internet. Thirty years in gestation, the World Wide Web created billions in new wealth and is as intertwined in our lives as Monday Night Football and AC power.

Why was it so successful? Because the "great" had enough time and enough freedom to emerge.

The federal government never mandated rules, regulations, or a purpose for the Internet, and large corporations dismissed it as a fad. As a result, entrepreneurs had time to experiment with new business models at nearly zero incremental cost -- without a license or oversight. Greatness took root.

WHAT A WASTE. A decade later, on the heels of the merely "good" CB radio, the now-ubiquitous cellular phone market was created. A few slivers of unlicensed spectrum -- virgin bands of wireless broadcasting channels for cordless phones and Wi-Fi -- were slowly released, all under the watchful eye of the Federal Communications Commission.

Now, you can't escape the ring of a cell phone, and Wi-Fi hot spots infest every coffee shop and hotel lobby. Sounds like a great success, right? Guess again. Our misuse of spectrum is one of the greatest lost opportunities of the last century, falling victim to the siren call of the merely good.

What's wrong with our current spectrum policies? First of all, more than 90% of all spectrum is wasted -- a perishable commodity leaking opportunity away every second. Cell-phone use plummets during evening hours, which is why wireless companies give away after-hours minutes.

STIFLING OVERSIGHT Over-the-air TV now serves less than 20% of the market. Each analog channel could be replaced by six digital channels. And one TV tower blankets an entire city transmitting a single program, instead of hundreds of small street-corner antennas each sending out hundreds of different shows and reusing the same bandwidth over and over again.

In a free market this commodity would be cleared in no time. But licenses and regulations discourage both the innovation and investment that would absorb it.

Second, in a country that celebrates its support for the entrepreneur and small business, the price of entry is too high. What small business can afford hundreds of millions of dollars for a wireless

license to simply discover if a customer might want to purchase a new wireless service?

In a dynamic and changing world, what entrepreneur would buy a license laden with usage restrictions -- the kind meted out by the FCC forcing one band to be used for only voice calls and another only for local commercial TV? It's like buying a truck from Ford, with a restriction that it can be driven only on Sundays while carrying nonagricultural products.

TAKING BABY STEPS. And third, spectrum is so politicized that nimble decision-making is impossible. For more than a decade the FCC, in a vain attempt to save the U.S. consumer-electronics industry, has pushed high-definition TV onto broadcasters.

For more than two decades the FCC has weighed conflicting comments suggesting new spectrum policies -- and has taken only baby steps toward deregulation and minimal spectrum swaps. Before that, the FCC delayed new technologies like UHF channels or color TV, to placate the Big Three networks. Smart entrepreneurs had to go elsewhere for inspiration.

In short, today's spectrum usage is sodden with the inefficiencies that arise when a command-and-control economy prescribes exactly who will produce what and for what purpose.

OPENING NEW DOORS. Freeing spectrum would create another opportunity like the Internet. A fully functioning market would expand current spectrum usage by 100 times and add 100 times more entrepreneurial ideas than exist in the minds of the current spectrum owners.

Imagine, for example, private mobile broadcasting that would help architects visually track construction problems at remote sites. Or new games, such as three-dimensional hide and seek.

Who knows? I don't, and that's the marvelous thing. History has shown over and over that once a real opportunity exists, people apply their creativity to it.

What stands in the way of change? The principal obstacles are the current owners of billion-dollar swaths of spectrum, who in any freeing of spectrum would resist losing their dominant positions.

BUYING AND SELLING BANDWIDTH. Yet the FCC and Congress, if they had a mind to, could find a relatively painless way around those owners -- and even, eventually, get them to acquiesce. I suggest a three-point spectrum-freeing plan over time that would:

- Let broadcasters retain their current TV licenses for any purpose they desire, in exchange for releasing the rest of the TV spectrum for unregulated purposes. HDTV broadcasting should be an option, not a mandate.
- Eliminate usage restrictions from cell-phone service providers, providing they resell that spectrum to third parties. If entrepreneurs want to monitor vending-machine inventories at 2 a.m., great. Let the market decide whether free minutes or fees are best.
- Slowly return all licensed spectrum to a Chicago Board of Trade-like commodities exchange, trading spectrum on a second-by-second basis to entrepreneurs and businesses alike. For each trade, the government could charge a 1% fee. Let supply match demand and variable cost.

WORLD STANDARDS. The combined revenue from the taxes paid by profitable entrepreneurs and the users fees paid for auctioned spectrum, I believe, would prove more than enough to rapidly purchase back the additional spectrum held by the large corporations that paid billions for it.

Talk about win-win-win! Everyone would gain, especially the U.S. economy. As the successful pioneers of the first broad, free-market-driven spectrum exchange, we would set world standards for usage and equipment. The U.S. economy, the home of innovation and the lone entrepreneur, would prevail once more.

Blonder is a general partner at Morgenthaler Ventures and is based in Princeton, N.J.
Edited by Jim Kerstetter

Copyright 2000-2004, by The McGraw-Hill Companies Inc. All rights reserved.
[Terms of Use](#) [Privacy Notice](#)

