

Opinion **New Technology Policy Forum**

Telecommunications leadership changes guard

Eli Noam DECEMBER 29 2006

(Go to the end of this article for forum-member Thomas Hazlett's response)

Every three or four years, the world's telecommunications industry converges in an extravaganza organised by its global coordinator, the International Telecommunication Union. These gatherings help identify the state of the industry at the time – unbridled exuberance in 1999; doom and gloom in 2003; and now, wireless and broadband expansion that is pulling the industry out of the doldrums, though much of it is run by the same large incumbent network firms which seemed *passé* just a few years ago.

In the cornucopia it is just as important to identify absences. And one such absence was US leadership. In the past, the direction of technology was strongly influenced by US firms - telecom networks were more advanced in US, policy discussions were shaped by US models, and US government officials offered visions of the future for countries both rich and poor. Not anymore.

Now, on the technology side, the event marked the passing from the stage of the world's leading telecom technology firm for over a century - AT&T- and its technology arms that used to be called Bell Labs and Western Electric, later spun off as Lucent. Last month, Lucent disappeared as a company and became the junior partner of the French Alcatel. Now, the largest US firm in this sector is Cisco, though that company, too, is besieged by the aggressive Chinese. Smaller Silicon Valley firms are innovative but with less access to financing, and constrained by expensive Sarbanes-Oxley compliance, they play a globally less outstanding role than in the past.

On the network side, the US is not in the lead in wireless and broadband, the cornerstones of new communications. Even if things are not nearly as bad as some critics charge, since the international comparisons have apples-to-oranges problems, other countries are setting the pace, increasingly in Asia.

On the governmental and policy level, the US has ceased to be the place to find new policy directions. True, much of what is happening around the world has been inspired by FCC policies of five or more years ago, but the next generation of ideas is coming more from London, Seoul, and Brussels than from Washington or the federal states, which were often the laboratory for US policy innovations.

America has been coasting on past glories. And given the long lead times of development and investment, all this will have negative long term impacts. Already, a [recent report by the National Research Council](#), entitled “Renewing US Telecommunications Research” documents the declining US role - both relatively and absolutely - in telecom R&D, and the void that has not been filled after the gradual demise of Bell Labs.

Leadership must come from the FCC in Washington, the *de facto* governmental policy setter in this field. But this agency has become highly politicised and divided on important issues. While technology progresses at the breakneck speed of Moore’s Law, the policy process has crawled to an even slower pace as the tone of the public debates has grown nastier on most important issues. Chairman Martin is politically capable and well-connected but also cautious and given to top-down management, and the agency spends some of its capital in stamping out four-letter words on broadcast television. The experimental role of the states has declined. And on top of it, Members of Congress have discovered that to engage in the micro-management of the industry can enhance their own importance.

This is the time to sow new seeds. Television is spreading to the internet. Users are rapidly adding their own content to the media mix. Smart wireless technologies are challenging the established system of exclusive spectrum licenses. Wireless and internet voice services are leapfrogging traditional telephony. Content access and geographic spread issues abound. Any of these trends generate issues, which, if unresolved, will slow and block development. Cellular mobile technology was originally substantially conceived in the US over 25 years ago, but American policy making choked on how to treat it. As a result, Europeans and Japanese forged ahead and the US still has not quite caught up.

The question now is who will set the tone, pace, and business models for the vital infrastructure of the information age. Four years from now, it will likely be set even less by America. This will be costly for its economy and for its “soft power” over global digital culture and politics. While one would wish otherwise, it seems unlikely that Congressional and regulatory leadership will emerge that is willing or capable to change a system that falls each year further behind the pace of technological change.

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Eli Noam's whirlwind tour through the information economy scores several true and valuable points. But I respectfully dissent from the use he makes of them, **responds Thomas W. Hazlett.**

For instance, Noam asserts that the US has fallen behind Europe in wireless telephony, offering unlicensed spectrum as a policy option eclipsing exclusive property rights models. But US regulators, pumping out unlicensed bandwidth allocations like no other country, have not produced a wireless cornucopia. While making speeches and sponsoring task forces to sing the praises of cordless phones and Wi-Fi, the Federal Communications Commission dithered in putting cellular licenses (with exclusive spectrum rights) into the market. The FCC auction completed in September lagged EU 3G auctions by six long years. Worried about US productivity? This fiasco, among other harms, stopped T-Mobile from building the US wireless high-speed data network it sought to provide. Only now, with new licenses in its portfolio, can the company invest \$2.7bn over 3 years to put new nationwide wireless broadband (UMTS/HSPDA) service in place.

Whatever US policy foibles, regulators worldwide offer lots of competition. Germany enjoys ubiquitous cable television service but virtually no broadband via cable modems. That's because policy makers have submerged the sector in a host of vertical and horizontal separation rules, deterring investment. Hence, German households rely almost entirely on DSL for broadband access, squandering competitive options. Across Europe, overly zealous regulation has similar effects, even as policy makers there look askance on the less regulated environment featured in the US (where federal courts over-turned network sharing mandates in 2004). But a January 2006 McKinsey & Co. report, "Entry Into the Exit," found that:

Europe has been substantially under-investing in telecommunications infrastructure. Unless this imbalance is corrected in the next few years, the EU-15 economies will miss out on growth and employment opportunities...Examples which suggest that deregulation works best include US deregulation of new wireline infrastructure, Switzerland's de facto laissez-faire approach, and the dynamic growth of the mobile industry all over the world.

In the global marketplace, the logic of comparative advantage spreads e-commerce riches by levelling up. China's emergence as an information age powerhouse does not diminish our aggregate opportunity, but expands it. Korea's deployment of ultra-fast network connectivity has not pushed our net development back, but helped pull it forward. India's efficiency in high-tech labor markets is enormously valuable to Indians – and to those millions of customers, workers, and investors around the globe who benefit from them.

I believe that the networked world into which we have just recently entered will correctly be seen as a catalyst to economic innovation and wealth creation across nations. That is one giant leap for capitalism - US, British, or Communist Chinese.

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