

Opinion **New Technology Policy Forum**

## The re-assertion of America in ICT

Eli Noam JUNE 18 2010

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It's become conventional wisdom in academia, politics, and the press that America has fallen behind in electronic communications. Where once America ruled supreme, bestowing the internet on the world, it is now an also-ran. Whether in broadband internet or in mobile communications, America is barely edging out Slovenia.

This may have been true for a brief period, but is it still true? And why is this story line taken up with such relish?

Those with a historic perspective in this field will remember similar reports — alarming or smug, depending on the perspective — in the past. There once was a Minitel gap, with France taking the lead in online data. But then came the internet out of America and obliterated the well-funded minitel effort. There was an ISDN gap, with Germany and Japan forging ahead in digital transmission. But soon, fast and smart modems emerged in America and ISDN fell by the wayside. There was even a VCR gap, in which Europe and Japan were supposed to threaten American media through their greater prevalence of home video recorders. Then there was the mobile e-commerce gap, with Japan's iMode taking over. Yet a few years later the less rigid mobile internet came along and prevailed. Is the present situation similar?

It is true that the past dominance of America is no more, partly because high technology sector has grown in many countries. Thus, it becomes impossible for a single nation to dominate all forms of information and communications technologies. There will always be some country that by dint of special circumstances or government support will break out of the pack and take a lead — Finland in mobile phones, Korea in broadband, Japan in fiber lines — until the peloton catches up with it. Bless them, they make a mosey into a race, and we all benefit.

Let's update the facts. In wireless, Europe and Japan had indeed forged ahead in the first and second generations of cellular communications while America was engaged in its domestic telecom wars. But in the present third generation ("3G"), based on higher speeds and data use, America has taken a clear lead. Data use in America is much higher than in other major countries, by a good margin, and is growing at a faster rate. Prices of mobile use, whether voice or data, are significantly lower. According to the CEO of Germany's telecom giant Deutsche Telekom, American data revenues grew last year by 29 per cent, (35 per cent according to other sources) compared with 11 per cent in Europe, while data revenues were \$15 per month, as compared with \$9 in Europe. Voice minutes consumed by subscribers is much higher than in most major countries. Mobile apps have exploded, with the catalyst being Apple's iPhone, from a company that has been barely three years in the mobile wireless business. The technology underlying 3G was developed primarily by the California firm Qualcomm. Just a few years ago, the followers of the dominant European GSM technology were belittling Qualcomm's CDMA technology as impractical; today they are paying it a license fee, grumblingly.

In the broadband internet, too, the US is still widely seen as behind. But household penetrations have increased briskly, and have now reached nearly two-thirds. With the twin Washington policies of stimulus investments and a national broadband plan, this is likely to grow further. But more important than household penetration is its technology and market structure. In most high-penetration countries the dominant technology is that of digital subscriber lines (DSL) which essentially gooses up the traditional copper plant rather than upgrade it with the much more powerful fiber. And it is provided on a single infrastructure, that of the dominant phone company, which is therefore strictly regulated to let competitors use its network and resell its services to customers. This benefitted customers though low prices, but lowered everybody's incentives to invest and upgrade.

In contrast, the American model gravitated towards a two-platform model of cable and telecom rivalry. Cable TV networks, too, are much more powerful than DSL. In consequence, the telephone companies had to respond and upgrade their own networks to fiber. In the past five years, American communications companies have invested over \$300bn in broadband upgrades. Projection for the next five years show a similar — slightly declining — figure. Add to that the private investments by individuals and companies in their on-premises broadband infrastructure, and all this adds up to a total societal investment of almost a trillion dollars over ten years — an unprecedented boost in infrastructure of any kind.

A similarly healthy climate exists in the field of applications of broadband. YouTube is the leader for user-generated video, Netflix for film streaming, Comcast for multi-platform “TV everywhere”, and Twitter and Facebook for social media.

For Europeans in particular, Google is the most current American company taking over the electronic world. It is the new Microsoft, which in turn was the new IBM, as an image of threat.

In television, America was, with Germany, the earliest among major countries to shift from analog to digital TV. And in content, no-one matches Hollywood’s edge, as exemplified by the film Avatar.

This should not suggest that America is dominant. But neither is it an also-ran. In a fast-moving and global field such as media and communications, technology developments tend to proceed at a roughly similar rate in the major high tech countries. National or company advantages are selective and temporary only.

The intriguing question is then why many people choose to stress the bad news. First, it makes for more interesting stories. Worldwide, the storyline of ‘decline of America’ makes for good copy and confirms fears and hopes.

Second, a story of decline can be leveraged by an opposition party in domestic politics, and Barack Obama made good use of it in the last Presidential campaign, just as Ronald Reagan did when he ran against Jimmy Carter, or JFK when he ran against Richard Nixon on a Cold War platform to close a non-existent “missile gap”.

Third, a narrative of challenged glory can be effectively used by stakeholders to spur government into action. The function of scare scenarios is often to mobilize patriotic sentiments for funding and policies. The appeal to national pride seems to be working. At the same time that American companies and policymakers bemoaned the US falling behind and sought favorable policies, officials in Brussels argued that it was actually Europe that was falling behind America, and asked for an expansion in authority.

Fourth, it is a way to score ideological points. For years, American officials and executives hectored the world to follow the model of liberalization, free markets, and deregulation. The temptation for others now is irresistible to relish America’s loss of leadership as Exhibit A for the need to return to a state-oriented, industrial policy model.

But perhaps most interesting is why so much is being made of so little disparity. Sigmund Freud called this “the narcissism of small differences”. Whether Japan or Sweden reach a certain penetration level two years earlier than America or vice versa, is after all, from a historic perspective, quite trivial. It’s the broad trends of development that are important, not which horse’s nose crosses the line first.

Magnifying small differences tends to tell more about the observer than about the subject of observation. America is the inkblot into which fears and hopes are being projected. Even where the facts are correct — which they often are not, comparing apples and oranges — their selective nature, and their comparison to an idealized selective set of comparison countries, enables a speaker to verify almost any pre-conceived notion. It is here that academia and journalism must play a role by providing detached analysis. Alas, both have become more politicized or in need of attention-getting simplifications.

The main question for analysis is whether performance differences are endemic and enduring, or whether self-correcting mechanisms are in place. And in light of the evidence in the ICT sector, such adjustment mechanisms, whether private sector or governmental, are alive and well in America.

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