

## Telecommunications, Environment/Energy and Health

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### Zenji Nakazawa

In 1997 monumental sea changes were rocking the world of telecommunications in both the U.S. and Japan. President Bill Clinton had just signed the Telecommunications Act of 1996. This legislation, which was the single largest revision of U.S. telecommunications law in more than sixty years, focused on promoting local competition by eliminating barriers to entry for new telecommunications service providers. And in Japan, the drumbeat for market liberalization was growing louder as the government of Japan proposed restructuring the nation's flagship telephone carrier, Nippon Telegraph and Telephone (NTT). These twin waves of change formally converged with the consummation of the World Trade Organization's Agreement on Basic Telecommunications Services in 1997—the same year I began my journey as a member of the third class of Mansfield Fellows.

My first Fellowship placement was with the Ministry of Posts and Telecommunications (MPT), which is now the Ministry of Internal Affairs and Communications, the Japanese regulatory equivalent to the Federal Communications Commission (FCC). My work at MPT provided me with an invaluable insider's view of the ministry's decision-making process just at a time when it was embarking on a set of new policy initiatives to promote market-based competition.

As part of my “education” at MPT I was asked to join a study group, which was working on an overhaul of the laws and regulatory policies governing interconnection rates. These are charges one telecommunications provider who does not have its own facilities, such as a switch, must pay to interconnect to the network facilities owned by a second provider in order to complete a call. The establishment of reasonable interconnection rates is a fundamental element in Japan's commitment under the WTO Basic Telecoms Agreement. I spent many late nights collaborating with my colleagues and drafting brief memos analyzing different cost structures to determine “reasonable” costs associated with various network elements as part of the group's final report. I quickly found myself immersed in complex Japanese regulations as labyrinthine as the fiber optic cabling stretching from beneath the streets of bustling Ginza to the silent undersea floor of Tokyo Bay.

What I found most amazing when I landed in Japan was that everyone seemed to have a cell phone. The phones were no larger than a pack of cigarettes, sleek in

design with rounded edges and hip covers like silver pearl or arctic blue. Even more remarkable was the fact that most people were texting—remember this was 1996, more than ten years before the first i-Phone or Android phone was made commercially available in the U.S. My chance to test drive the latest Japanese handset and to get a closer look at what was driving this mobile phone craze occurred during my second Fellowship placement with Japan’s leading mobile telephone carrier, NTT DOCOMO.

NTT spun off NTT DOCOMO in 1992, and it retained a majority interest in the mobile cell phone provider. But I was hard pressed to find any vestige of its iconic, monolithic parent at NTT DOCOMO. The offices at NTT DOCOMO seemed to radiate excitement and energy like a mini-stock exchange or bustling university commons. My arrival at NTT DOCOMO coincided with the company’s unveiling of its newest mobile phone handset called i-mode. At the time, the i-mode was revolutionary in its one-push button design and in its reliance on a mobile, as opposed to a local wireless platform to access the Internet—hence the clever word play and name DOCOMO (“Do Communications Over the Mobile Network” or “anywhere” in Japanese). As a member of the business development section, I worked closely with a team whose task was to test consumer “apps” running on i-mode as well as to test the reliability of i-mode services in different user environments. My colleagues and I also suggested several tweaks to improve the i-mode’s functionality, resiliency and coverage. At the time, I recall staff having a keen interest in developing native apps for locating people in times of emergency similar to Google’s People Finder, as well as apps to enable mobile alerts for earthquakes similar to the Emergency Alert System and the Commercial Mobile Alert System in the U.S.

By the end of my Fellowship in 1999, the Japanese government had finally begun implementing a new law to restructure NTT into a holding company with three separate subsidiaries: NTT East and NTT West would continue to provide local telephony services, and NTT Communications would continue to provide long distance and international services. It was also the first year that NTT East and NTT West began to offer what was then an unheard of flat-rate, all-you-can-use Internet service. I chose NTT Communications as my final assignment because the company was aggressively expanding its influence internationally through financial partnerships and joint ventures. During this time, I witnessed the company broker several deals from a start up in Silicon Valley to an IP-based company in Singapore.

In retrospect, the changes I witnessed during my Fellowship were emblematic of Japan’s legendary continual improvement philosophy of “*kaizen*.” As in the U.S., the growing pains of market liberalization helped usher in the rise of disruptive

digital technologies in Japan, bringing with it not only new innovations but also new uncertainties, primarily: how would this transition affect interoperability with legacy networks, how would we satiate the increased demand for broadband, and how would we ensure the level of seamless connectedness, network reliability and security consumers and emergency first responders have come to expect from our communications today? In an era fraught with natural and man-made threats, from the terrorist attacks of 9/11 to the Great Tohoku Earthquake of 3/11, these are just some of the telecommunications and cyber-security related issues that underscore the mutual interests and challenges facing both the U.S. and Japan. I believe that by providing an opportunity to explore these telecommunications issues from another perspective, the Mike Mansfield Fellowship Program has enabled me to make a very substantial contribution to the U.S.-Japan dialogue.

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**Zenji Nakazawa** participated in the Mike Mansfield Fellowship Program as a representative of the U.S. Federal Communications Commission from 1997–1999. During his Fellowship year in Japan, he served in full-time placements in the former Ministry of Posts and Telecommunications (now the Ministry of Internal Affairs and Communications), Nippon Telegraph and Telephone Corporation, and NTT Mobile Communications Network, Inc. (NTT DOCOMO). He currently is deputy chief of the Policy and Licensing Division of the Public Safety and Homeland Security Bureau at the Federal Communications Commission.