

The Revitalization of Regional Communities and the Role of IT

During the 1990s, Japan's Internet penetration lagged behind those of other advanced nations, but as a result of the rapid succession of policies that were released following the national government's declaration in 2000 that Japan would become "a world leader in IT," Japan has now managed to achieve a world-class information technology environment in terms of infrastructure. However, there are still issues that need to be addressed. Specifically, there is the question of how to utilize information technology to increase overall national efficiency, as well as issues relating to IT utilization in regional communities and in the context of an aging society. Keio University Professor **Jiro Kokuryo** comments.

There are not many countries that can make large-scale computer hardware adequately, or that have companies that can do so. For a long time after the end of the Second World War, the "information industry" was a central part of Japan's industrial development, and this was the background to the time when Japan was a world leader in making large-scale computers, an era that lasted until the 1980s. The 1990s saw the emergence of personal computers and the Internet, but Japan was a little late in catching this wave, and Japan's IT presence during this decade was almost invisible. This was the situation that prompted the national government into action.

In particular, rather than simply viewing the Internet from a technical standpoint as "just another industry," the Internet was recognized as an important element that could fundamentally change the very nature of society (by encouraging citizen participation in a recycling economy, for example). For that reason alone, there was a significant sense of crisis regarding Japan's late start in both public and private sectors, which led to the establishment of the "IT Basic Law" in 2000 and the "e-Japan Strategy" based on this law in 2001. These measures promoted the spread of information

technology by highlighting issues such as e-commerce and e-government and declaring that Japan—with one of the lowest rates of Internet penetration of all advanced nations—would become "a world-leader in IT," and establishing a goal to increase broadband network adoption to 30 million connections.

"Version 1" of the e-Japan strategy played an extremely large role in rolling out infrastructure from 2002 to 2003, and the idea that Japan might in fact become a world-leader in IT

began to feel like a distinct possibility. ADSL, in particular, spread like wildfire, rapidly followed by optical fiber and Internet connections via mobile telephones, such as i-mode, as communications networks became increasingly broadband and mobile.

However, in the areas of services and health care, information technology was not necessarily utilized in a way that benefited citizens in general. This led to the establishment of "e-Japan Strategy II" and the "New IT Reformation Strategy" as major national strategies, whereby every year the national government encourages the spread and utilization of IT by identifying a particular issue as a "Priority Policy" for the year, and cycles through these priorities so as to give substance to these strategies. This method is based on the PDCA approach (plan, do, check, action), which is unusual for a national strategy. So these strategic initiatives are also innovative in terms of the way that the policies have been created and promoted. Since then, the Ministry of Internal Affairs and Communications has established the "u-Japan" policy

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in 2006 to actively promote so-called ubiquitization and ubiquitous computing. This has been part of a comprehensive strategy by the government as a whole, with the Ministry of Trade, Economy and Industry also actively promoting electronic tags (RFID) and moves to create international standards for specifications for RFID communications. As a result, by 2006, the goal of becoming a world leader in information technology had been realized in terms of infrastructure. At present, there are very few countries in the world where broadband Internet access is as affordable and easy to use as it is in Japan.

IT: Practical Benefits and Barriers

Establishing IT infrastructure in this way has led to significant changes in the way that people go about their lives. The more than twenty million residents of the greater Tokyo metropolitan area can now complete their journeys by train, subway or bus using a single IC card from end to end, hopping between several transport companies, with charges calculated automatically as they go. More than half of all airline bookings are now made from mobile phones or over the Internet, and passengers can now book flights from their mobile phone and then use their phone as a boarding pass, without having to buy a paper ticket. Similar changes are taking place with the way that shares are traded, to the point where IT can now be said to be firmly rooted in the everyday lives of ordinary people.

However, in terms of usage that brings benefits to people's lives as a whole, systematic barriers still remain, even if the technical barriers no longer exist. More than 90% of the paperwork for the national government applications can now be done electronically, but at the local government level—where the benefits to people's daily lives can most be expected—support for information technology (such as using computerization to allow people to submit forms for various procedures from home) is still less than satisfactory. Herein lies a paradox. The sole issue for the national

government is to continue pursuing deregulation and the simplification of procedures. This is the necessary condition; the sufficient condition is to bring about a system that supports the quality of people's utilization of IT.

The Transformation of Local Governments

For local governments, who face the twin challenges of a rapidly aging society and the need to transform their services with IT, the question being asked is their vision for their local community. Regional areas had plenty of vitality when Japan's economy was centered on primary industry, and they still managed to retain much of this vitality even as the emphasis shifted to secondary industry, with factories located in regional areas. However, the Japanese economy today is mainly supported by service industries, which now make up 70% of the economy, both in terms of GDP and in terms of employment. Even with manufacturing, the emphasis has shifted from functionality to design, and there is an extremely strong tendency for both people and vitality to concentrate in major cities.

The web of human connections that once formed regional societies is beginning to unravel as people continue to move from regional areas to major cities, and those people who remain in regional areas are constantly looking to major urban cities in their daily lives.

As a result, we need to find ways to invigorate self-reliant activities in regional communities by recreating connections between people, and to consider what kind of role local governments should play in this process. As I said earlier, there is an urgent need for local governments to reform their systems to benefit the people, by

computerizing various procedures, introducing databases, managing information centrally, and so on.

Until about twenty years ago, government was considered to be a service industry, but with the acceleration of the aging of the population, urbanization and the depopulation of the countryside, we need to change the basic design philosophy for regional communities, from a model where the government provides services to one where people help themselves, or else it will not be possible to maintain the



Professor Jiro Kokuryo

social system.

Take the system for providing aged care, for example. The current system will not last another fifty years if we continue to use an approach where the services provided are equivalent in value to the amount of taxes collected. What is needed is for non-government agencies, such as NPOs and aged-care providers, to contribute to building regional communities of their own volition. What is required of local governments—apart from the obvious need to make their operations more efficient—is an approach that

emphasizes providing a foundation that facilitates citizen-initiated activities, by providing citizens with the kind of information that enables them to show their true potential.

We have entered an age where citizens can broadcast information from mobile telephones and mobile computers. Taking natural disasters as an example, local governments no longer simply rely on strategic places and the disaster-prevention facilities and measurement instruments (such as seismometers) installed in these places. Instead, they must consider a


portant. Recently, community FM has started to become increasingly interactive as a kind of “cross media.” When a disaster occurs, citizens use their mobile telephones to send emails to the radio station, which then contributes to ensuring the safety of the region by passing on useful information. This approach is more than just a mechanism for “citizen provided media,” and it has taken on a significant function as it starts to spread around the country. This is an excellent model, and should be a positive factor in our thinking about the future

tion that can bring out the strengths of the people. I think that this will be the basic design philosophy for local government in future.

Key Questions

Various efforts are being made in various places, although many of these initiatives are still experimental. For instance, there has been a growing trend to utilize IT in traditional industries (particularly agriculture and fishery) to provide safety and better quality to the world. The background to this trend is a realization of the substantial trust that consumers place in food products that have production records (such as logs of the fertilizers and pesticides that have been used) and an increasing awareness of the existence of an Asian market that demands these kinds of safe food products, as increasing emphasis is given to the problem of food safety globally, not just in Japan.

The revitalization of regional communities will probably start from these kinds of ideas. We have reached a phase where we must think about how to maintain regional communities by strengthening the competitiveness of agricultural and seafood products and producing products with a distinct element of Japanese culture. In other words, we must approach global markets with the realization that it is Japan’s traditional culture itself—our way of life and our industries—that make Japan internationally competitive.

It is difficult to imagine that regional communities will be transformed simply as a result of introducing information technology, and that this transformation will eventually spread throughout the entire country. Instead, what we must not forget is the critical importance of asking some key questions. How are governments (both national and local) and citizens themselves trying to transform regional communities? What is the basic design model? And what is the underlying philosophy behind these models? 

Jiro Kokuryo is director of the Incubation Center, executive director of Keio Research Institute at Shonan Fujisawa Campus, and professor in the Faculty of Policy Management at Keio University.

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comprehensive disaster-prevention system that encompasses information contributed by citizens in areas at risk of natural disasters, or citizens in areas where disasters have occurred, or in areas near evacuations sites. We need to have regional communities where the role of the local government is to mobilize the area’s resources, with the Town Hall acting as the “producer” coordinating these resources, and with the citizens themselves taking the lead roles.

In this example of regional disaster-prevention, the role of community FM radio has become extremely im-

of regional communities,

These issues are not limited to Japan, but will also be shared by other Asian countries, particularly Korea, which also has a rapidly aging society. The question is whether Japan can lead the way in responding to these challenges. In addressing issues such as “balancing environmental issues and economic growth,” “maintaining economic vitality in an aging society” and “ensuring safety and security in aging society,” it is important that local governments do not simply adopt a “service provider” model, but rather focus on building an IT founda-