

Technotalk

Seeking “True Affluence” through Solution-based IT

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The emergence of challenges associated with such social trends as the super-aging of the population has also been accompanied by the rapid advance of digital technology, such that great potential is seen for the use of IT to overcome these challenges and achieve ongoing growth. Prompted by the formulation of a new national IT strategy in 2013, Japan is expediting the establishment of infrastructure for the use of IT in ways that facilitate social reforms. As an active participant in the national IT strategy, Hitachi is working to implement e-government through the supply of a wide variety of IT solutions that support the operation of the public sector. Along with responding to new challenges such as cybersecurity, Hitachi intends to utilize IT to support the creation of a “truly affluent” society.

Underlying Concept of “Declaration to be the World’s Most Advanced IT Nation” and e-Government Initiatives

Kajiura: Japan’s first national information technology (IT) strategy was the 2001 e-Japan Strategy. In addition to its participation in strategy formulation on a number of occasions through membership of expert examination committees, Hitachi has a deep commitment to national IT strategy that includes such activities as lobbying from an industry standpoint. The new national IT strategy of 2013, the “Declaration to be the World’s Most Advanced IT Nation,” has now been revised. I would like to start by asking Hideo Hamashima, a Counsellor in the Cabinet Secretariat, to explain the key points of the new national

IT strategy.

Hamashima: I will start by speaking about past activities. The “Declaration to be the World’s Most Advanced IT Nation” aims to make Japan a world leader in the use of IT and forms part of our growth strategy, the “third arrow” of Prime Minister Shinzo Abe’s economic policy known as Abenomics. Drawing on considerations such as a review of the previous national IT strategies, a Government CIO* was appointed in 2013 to coordinate implementation of government

* Government Chief Information Officer (CIO): Responsibilities cover managing investment in IT in all areas of government, funding IT investment by government agencies, and providing strategy and management planning, execution, and coordination in relation to e-government. The National Strategy Office of Information and Communications Technology that supports the Government CIO is staffed by CIO aides from various agencies.



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Mr. Hamashima joined the Ministry of Internal Affairs and Communications in 1990. Following positions that included head of the Regional Information Policy Office, he was Counsellor of the National Strategy Office of Information and Communications Technology, Cabinet Secretariat until July 2015 where he was involved in revising the 2015 “Declaration to be the World’s Most Advanced IT Nation.”



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IT policy. The proposed revision, which draws on the results of work done over the two years since then and rapid advances in digital technology, was approved by the 68th session of the Strategic Headquarters for the Promotion of an Advanced Information and Telecommunications Network Society on June 30, 2015, and the Cabinet decision was issued on the same day. The session of the Strategic Headquarters was attended in person by almost all Cabinet Ministers, with those Ministers who made submissions expressing their active participation in IT strategy from the perspectives of their respective administrations. I was able to see firsthand that expectations and interest in IT strategy are rising within the government.

Japan is facing the super-aging of its population, with challenges that include a shrinking workforce, rising social security expenses, and the need to deal with the aging of social infrastructure. To achieve ongoing growth in such an environment, it is necessary both to establish IT as an engine for growth and to utilize it as a tool for overcoming these challenges. In practice, during these two years, we were able to build a platform for utilizing IT under the leadership of the Government CIO and with the cooperation of all parties. For example, thanks to measures such as the consolidation of government information systems with reference to operational reforms and their migration to the cloud, we expect to be able to reduce the number of systems by 60% by FY2018. We are also stepping up measures aimed at achieving our target of a 30% cut in operating costs by FY2021.

In the case of the identification (ID) number system, meanwhile, we have concentrated on initiatives that contribute to the use of the system, including collation of the functions and requirements for the My Portal system for providing users with records such as the information they have disclosed. Work is also progressing on

establishing the infrastructure for utilizing personal data through amendments to the Act on the Protection of Personal Information. We have also made good progress on open data, expanding data catalogs such that more than 13,000 datasets are now available. These activities have also received international recognition, with Japan having risen from 18th place in 2012 to 6th in 2014 (out of the 193 members of the United Nations) in the e-government rankings of the United Nations Department of Economic and Social Affairs.

The new “Declaration to be the World’s Most Advanced IT Nation” recognizes as one of its core concepts the establishment of a solution-based model of IT use that will set an example for the world through the pursuit of “true affluence.” With the aim of solving problems by utilizing new technologies such as the Internet of things (IoT), we intend to undertake initiatives based on four core policies with a view to utilizing standardization of IT use to make it more general-purpose and enhance its sustainability, and also to encourage innovation in all areas.

The first of these policies seeks to become “a society that grows toward the future through more intensive by utilizing IT” by pressing ahead with e-government, the use of personal data, open data, and establishing the institutional framework for encouraging the adoption of IT at both the national and regional level. To facilitate this new institution-building, we have formulated a basic plan for use of IT that sets out five principles and implementation policies, including making it a prerequisite that electronic processing be used for government data. The second policy seeks to become “a dynamic society that invigorates communities, people, and jobs by utilizing IT.” It aims to promote regional job creation and economic revitalization by sending IT personnel, such as the Government CIO and



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Mr. Kajiura joined Hitachi, Ltd. in 1981 and is currently engaged in IT policy lobbying and business incubation. He is a director of The Japan Society of Information and Communication Research, a director of the Japan Project-Industry Council, and head of the Internet Economy Private Sector Working Group of the Committee on Information and Telecommunication Policy of the Japan Business Federation (Keidanren).

successful practitioners, out to the regions to support information system reform and industrial development as part of a plan to encourage the use of IT for regional development. The third policy seeks to become “a society where people experience safety, security, and prosperity by utilizing IT,” including the use of information such as healthcare and medical data for preventive medicine and other forms of health promotion, the use of data to enable sophisticated agricultural practices, and the successful development of fully self-driving vehicles. The fourth policy seeks to become “a society where one-stop public services are available by utilizing IT” through ongoing measures that include the use of the ID number system and the reform of government information systems.

Among the elements underpinning these policies, we are working to develop and train human resources, establish world-leading IT infrastructure, and strengthen cybersecurity at government institutions. The National Center of Incident Readiness and Strategy for Cybersecurity (NISC) is playing a central role in this latter objective. Specifically we are looking at ways of utilizing the savings achieved through improved system efficiency to fund the cost of security countermeasures.

Necessity for Using IT to Build an Affluent and Vibrant Nation that Enjoys Ongoing Growth

Yoshida: In January 2015, the Japan Business Federation (Keidanren) published a new vision document entitled “Toward the Creation of a More Affluent and Vibrant Japan.” Under the leadership of Sadayuki Sakakibara, Chairman of the Keidanren, the document looks ahead 15 years to consider what sort of country Japan wants to be in 2030, and the challenges and policies associated with achieving such a vision. Four examples of the nation’s aspirations for 2030 are: (1) affluent and vibrant national life, (2) a population of not less than 100 million living in attractive cities and localities, (3) a solid foundation enabling the economy to grow strongly, and (4) contributing to the prosperity of the world by providing solutions to global problems. We believe that the use of IT is essential to achieving a safe, secure, and convenient way of life.

The ID number system is a valuable platform for e-government and social security reform and along with forming part of the infrastructure of a growing nation, we also believe there is a need to come up with ideas for how the private sector can use the system to improve convenience for the public.

Hosoya: Hitachi is involved in developing the information

systems that underpin e-government and, as we work with customers on the system implementation of the ID number system in preparation for its launch in January 2016, we are striving to find ways to combine appropriate safeguards for ID numbers with faster interchange of information. We are also supplying not only a solution for supporting the adoption of the ID number system that utilizes encryption and other security techniques to achieve high reliability and security and that covers everything from consulting to system installation, modification, and operation, but also business process outsourcing (BPO) services for ID number system that handle the processes associated with operating the system, from the collection and registration of ID numbers to the printing of official documents such as certificates of income and withholding tax.

For e-government, we are helping to reduce operating costs by adopting solutions that incorporate new technologies such as the cloud and virtualization to enhance both convenience and efficiency without interrupting existing work processes. We see our mission at Hitachi as being to provide support that ensures the continuity of government services while also responding to new challenges, such as cybersecurity, even as the IT infrastructure evolves.

Hamashima: The Keidanren’s Sakakibara Vision corresponds to the challenges facing Japan as a whole and to the directions set by the government. Among the initiatives aimed at the use of IT is one for strengthening cybersecurity. We are extremely grateful to see the private sector adding its voice to this issue.

The roles played by local government in government services will likely become much more diverse in the future. Activities such as surveillance that were once the realm of local communities are now being transformed into government services. The use of IT has a lot to offer when considering how to cope with rising workloads amid constrained finances. For this reason, I look forward to an increasing number of IT vendors offering solutions in the field, such as shared use of systems on the cloud, and to local governments engaging in operational reforms in sympathy with this.

Public and Private Infrastructure Building for Use of IT and Data

Kajiura: What sort of contributions can IT make to future growth strategies?

Yoshida: One important area is how to deal with the aging of the population. Examples include automation to make society function more efficiently, implementation of advanced driver assistance systems that are safer and

easier to use, and uses for IT such as telemedicine and other forms of telework that overcome the barriers of distance and time. Another priority is encouragement of the use of public-sector data by industry as highly reliable basic data. There is scope for using big data to enhance society, with an urgent need to provide the frameworks that this will require and to build a national consensus on the subject.

In relation to use of data, the Keidanren is particularly interested in large cross-border flows of data. As skill in the use of data has a direct impact on competitiveness, there is a need to establish international rules and free and fair markets that can lay the foundations for this activity based on an adequate appreciation by both the public and private sectors of the importance of cross-border data flows so that the collection and use of data can take place at a global level to boost innovation.

There is growing interest in the use of personal data and expectations for regulation and rule-making in regard to this that include consideration of factors such as encouraging private-sector use of data, an agile response to technical innovation, and minimizing social costs. On the other hand, companies also need to propose voluntary rules that can overcome the concerns of consumers and achieve a consensus within society.

Given the prospect of further rapid advances in the digital society in the future, there is a need to deepen the discussion of overall system design, including redesigning paper-based practices.

Hosoya: Hitachi's involvement in the solution-based use of IT includes utilizing healthcare data to prevent the worsening of lifestyle disease symptoms, more advanced and efficient agricultural practices utilizing data and remote management, and telework support solutions. We are also working on the development of systems that use technologies such as artificial intelligence and robotics to support the customer-facing activities of local government offices and financial institutions. We see potential for the use of open data in relation to these initiatives. We also hope to see progress on establishing the legal framework to allow the bundling together of useful data from across different institutions, including data such as population statistics or evacuation routes that can be used to overcome challenges.

As we expand our work on social infrastructure overseas through our Social Innovation Business, we are involved not only in the sale of equipment, but also in working with customers to build the institutions of society and the systems that support them, particularly in emerging nations that have yet to fully establish such institutional infrastructure as social security and postal services. Through this business, we are seeking to help

overcome societal challenges overseas as well as in Japan.

Hamashima: In regard to the importance of cross-border data flows mentioned by Mr. Yoshida, we are also working on this based on a common understanding of the issues. In the case of open data meanwhile realistic data based on the actual situation is crucial to both the identification of policy issues and the choice of policy, and I believe it is essential that open data plays a part in future policy-making processes.

The ability to offer a package that combines institution-building with the use of IT in markets such as emerging nations is a notable initiative. Just as Japan learned from other countries about the infrastructure of a modern nation, providing assistance that includes institution-building is likely to have a major impact on overseas nations. Moreover, I hope that, by marketing this in conjunction with Japanese industrial technology, we can achieve win-win relationships that benefit both Japan and the nations of the world.

Kajiura: What interested me most of all in the "Declaration to be the World's Most Advanced IT Nation" was the inclusion in a national strategy of the idea of information being a fourth type of business resource along with people, goods, and money. Solid progress has been made on establishing the infrastructure for utilizing information in the activities of Japan during the two years or so following the Declaration, and this has reaffirmed how important close coordination between the public and private sectors is to achieving further progress in the future. Hitachi intends to contribute to society as a whole by further developing its IT solutions for the public sector. Thank you for your time today.

This Technotalk discussion took place during July 2015.