Weaknesses Exposed by COVID-19: Can Japan Recover from the "Digital Defeat"?

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Confusion caused by digitalization delays

—Can you name some issues caused by digitalization delays in COVID-19 measures?

Firstly, the operation of COVID-19 measures involves a variety of intertwining elements, so it's not possible to explain all of it with just digitalization delays. I'd like to talk only about what's based on facts.

Prof. Miyata Hiroaki

I think the first thing many Japanese people felt was strange was the shortage of the face masks. Even with the same volumes in stock, it's possible that digital management could have kept track of how much is where and distribute it to avoid a situation where those who need it don't get it. As an example, if they had clearly communicated that "there's at least one month's worth for "essential workers and high-risk people with chronic illness and two weeks' worth for others," then people would have felt safe and we could have kept down the panic buying of masks.

Another extreme example is toilet paper hoarding, which occurred not only in Japan but around the world. It's not something that should suddenly be needed in large quantities, but there was a shortage.

The most iconic was the special cash payments of 100,000 yen per person in 2020. In other countries like Germany and UK, benefits were given in a few days, and in India in about a week. However, in Japan, it took several months for the benefits to be completely paid out, and the then Minister for Digital Reform Hirai Takuya was outraged that "it cost an additional 150 billion yen."

Japan is a relatively high GDP country, so you would think that "the introduction of digital infrastructure is not so far behind," but in reality Japan was Ranked 27th in the World Digital Competitiveness Ranking 2020 by the International Institute for Management Development (IMD). [28th in 2021]

Too strong "face-to-face principle"

— At one point, it was thought that telework would advance in Japan, but recently there seems to be many companies going back again.

There was a serious spread of COVID-19 under the Trump administration, but there is a big difference between the United States and Japan when it comes to telework. While the percentage of people who want to work from home doesn't differ much, documents from the Cabinet Office suggest

that about 40% think working from home is more efficient in the United States, while nearly 85% think it's no worse than going to the office. On the other hand, more than 80% think that working from home has a lower productivity in Japan.

Of course, there are factors such as that Japanese houses are too small to be suitable for telework, and there are differences in occupational structures, so you can't make simple US-Japan comparisons. However, remote education has not really penetrated the Japanese educational field either. When the 2018 OECD survey asked "Do you use ICT on a daily basis in the field of education?" Denmark was at the top with 90%, while Japan was the lowest among 31 countries. Against this background, it has been pointed out that ICT has tended to be treated as an impediment to education in Japan. As with telework, the "principle" of face-to-face communication is probably delaying digitalization in Japan. Some people say that if ICT is introduced, there will be no teachers on site, but that is not the case. Rather, it will become possible to tailor education better for individual children.

The world is already shifting to new business, new education, and new administration by having acquired the option of going digital. I think it's important for Japan to pioneer the future in that direction as well.

—Were the benefits paid out faster in Germany and UK because personal tax payment data and other information could be traced digitally?

Yes, but you can also see the delays in IT environment construction in Japan. In Japan, the obligation to link My Number card (individual number card) and bank account was postponed in November 2020. Without explaining the benefits, suddenly saying, "Please allow us to connect with your bank account" will make people feel that their privacy is invaded, so they "I don't like it."

The important thing is to share a vision of what IT can do. For example, it is important to present that "you will receive the benefits with no need to apply." I think this is also an expression of how the smartphone ownership rate in Japan is lower than in other countries. We couldn't broadly communicate how smartphones have the potential to change lives.

In the high economic growth period, infrastructure such as roads and telephone networks were developed by Japan without having to set a clear purpose but got more uses later on. However, IT becomes unusable if you create it without setting a purpose. The idea of the My Number card is becoming standard in the world, and I don't think it's bad, but we have to create infrastructure that anticipates its uses.

In the world's most advanced regions, IT is used to deliver the services they need to the people they need, at the right time, rather than delivering things uniformly. I think that will be what we will look like in the future.

As an example, we have been working with the former Minister in Charge of Real Reform Kono Taro since 2020 in a project to reduce poverty for single mothers.

Japan's poverty rate for single mothers is quite high not only among developed countries, but also developing countries. Of course, there are support systems, but the more severe it becomes, the harder it is to apply for support by yourself. Therefore, if employment, welfare and medical data can be connected, it would be possible to create a service that detects and gets close to difficult situations. Alternatively, if we can share health checkup data, we could see a child's weight development to become more aware of poverty and abuse, and provide support from early on.

By connecting data, we support people before it becomes too difficult. I think this is how we should approach the use of IT for the future.

The causes of our "digital defeat"

— Why has Japan been so delayed that we are talking about "digital defeat"?

Comparing the economic situations of Japan and the United States over the past 30 years, Japan has been sluggish, but in fact, American companies such as Ford and GM have also been growing slowly. However, the big growth of Google, Apple, Amazon, Microsoft, Netflix and others called Tech Giants (Big Tech) has made a growth curve for the country.

When things go slowly in a predictable way, like the high economic growth period, I think it's good for traditional companies to grow. However, the industrial structure itself has changed with the full-fledged phase of digital revolution. It's very difficult for companies to continue to grow comfortably while maintaining their previous business style.

In that regard, Japan has not put enough effort into venture companies and start-ups, in the sense of nurturing companies that create new value with uniqueness and have an impact on society. I think that an over-attachment to the style of *monodzukuri* (manufacturing) has delayed the shift to digital-centered business.

— I've heard that digitalization doesn't progress because Japanese people are reluctant to provide personal information.

The dislike of giving personal information is a common trend in many countries around the world, and the Japanese are not exceptional in this. Some EU countries have a higher sense of privacy than Japan. There are many countries where people are distrustful of the government more than Japan.

The problem with Japan is that the government has not been able to communicate to the people a vision of how to use information. In fact, many Japanese use Facebook and Google. This is partly because they don't know the terms and conditions, but in many cases, it's because it's convenient. Survey results indicate that when asked "Can we use the data for public purposes?" many Japanese find this acceptable.

On the other hand, the delay in digitalization in Japan is the flip side of success from the high economic growth period to the end of the Showa era (1926–1989). The infrastructure has reached every corner of the country, and fax machines have been installed everywhere, for example, making things dramatically more convenient. So rather than replacing these things with new things, we've spent the last 30 years skillfully using the devices we already have. As a result, Japan is using fax for the COVID-19 case report! That's really surprised the world.

However, we really are at a limit, and we have to change things on a fundamental level. Japan's GDP is still relatively high and we're competitive in the international community. We believe that if we can grasp the possibilities of a future that are different from Silicon Valley and China that preceded us, then we'll be able to take new steps forward.

Missing entrepreneurship

— Does Japan have the IT technologies needed to take those new steps?

It's a mix of possibilities and challenges. For example, Japan has on-premises engineers who operate and manage physical infrastructure equipment in-house and in server rooms, but there is a shortage of cloud engineers (engineers who build and maintain cloud networks), which are mainstream around the world. Experts say the skill set required by these engineers is as different as that between wooden architecture and reinforced architecture. It is not easy for on-premises engineers to become cloud engineers, but rather it's quicker for young people to study the cloud and AI operations from the beginning.

The advanced human resources needed come together only once we have refined cutting-edge technology or developed a new industry here. It's difficult to make technology cutting edge unless there is a space to refine its use. If young people come to think that attractive businesses and operational examples will appear in Japan, and that working here is cooler than working for the Tech Giants and lets them contribute to the world, then the talent will gather.

The current problems in Japan are clearly manifested in the career paths of young people after graduating from university. In the United States, the best people try doing start-ups. Next, they join a tech company like GAFA. In Japan, it's less about an engineer shortage and more about an entrepreneurship shortage. I think there is a lack of foundation for talented people to aspire to start companies and support them.

Leveraging Japan's strengths

— Out in the world, companies attractive in terms of working environment and income are competing ruthlessly. Will there appear companies in Japan capable of standing alongside them and overtaking them?

The Tech Giants are changing rapidly, and there is also potential for the world as they change in the future. On the other hand, there are many things that they have not been able to achieve. For example, although the Tech Giants have a great ability to thoroughly pursue efficiency through rationality, they are weak with regard to diverse and multi-dimensional food initiatives.

Food is not good simply because it's cheap. If it is seasonal, we'll buy it even if it's a little expensive, and we buy delicious things and things that suit our taste at higher prices. There are various tastes, and rich food cultures are born in their diversity and plurality. It is well known that Japan has one of the world's top food cultures, so if we can develop Japan's rich food culture in a variety of ways and diversify and build it up as new businesses, there is great potential.

The same is true of health. When addressing health care and health, there are many healthy seniors in Japan, while the United States has to deal with obesity that affects 30% of the population as well as problems with disparities. It might be possible to pioneer a new industry in supporting their attractive lifestyles. I think there lie new business opportunities in naturally being healthy by living an attractive way of life, not simply avoiding illness.

In addition, if we can properly harness the diverse and multidimensional cultural power that exists in Japanese contents like animation and manga, I think we have a good chance.

These values are nothing less than the diverse and pluralistic cultural appeal of Japan that emerged from the development supported by high economic growth. This can be our next growth opportunity. However, it is very important to have a vision for that purpose.

— Do you mean that we need to formulate a new vision about the current state and future of society using digital means?

Looking at the issues identified at the G7 Summit meeting in June 2021, they were not economic development and international cooperation but sustainability, diversity, and inclusion. The global framework has already changed its priorities and negotiation style considerably. It is not possible to persuade another country simply by insisting on your own interests. In the bigger framework called human sustainability, it is very important what kind of vision Japan and Japanese companies can come up with.

Until now, Japan has been critically lacking any design of what kind of situations to set up in new stages related to the digital. It's not just about business, it's the same on the government side. Methods for administration and business up until now have been based on targeting the middle layer. It has been thought that it is important to deliver the same thing uniformly. As a result, it was difficult to respond individually to people who ended up outside.

However, by utilizing IT, it is becoming possible to respond to individualization and not leave anyone behind. This is how we can think about IT in the future. In addition to the idea of the "greatest happiness of the greatest number," it's important to come up with measures that don't leave anyone behind, including minorities. This is because the digital has the power to handle a diverse things in equally diverse ways.

What is the role of the Digital Agency?

—The Digital Agency was launched on September 1. What are the expectations?

In last year's working group for the digital reform bill, I made recommendations on what the Digital Agency should be. The philosophy of the Digital Agency is that the digital is only a means that ought to be used to create a diverse future and support individual persons. This was born through such dialog and I sympathize with it. On the other hand, we're trying to build the future while redefining the role of each ministry and agency, but there's not much we can do with a limited number of people to meet the enormous challenges.

Creating the Digital Agency is meaningful, but in its early days, we're forced to devote resources to developing the digital environment amid numerous challenges. Therefore, we won't be able to focus on creating the future and services that we will need.

How to use digital is a problem for each of us. Also, in many cases, companies become sustainable by implementing a business model. We don't want to have too high expectations solely on the Digital Agency as it's up to us ourselves to think about what kind of businesses to create and what kind of future to envision.

— How should we live with the digital from now on?

Of course, it is important to be wary of dystopia caused by digitalization, but it is also necessary to

recognize that the digital has a unique potential to realize diversity and a society where no one is left behind, and think about it as a means to pioneer the future. As the inefficient operations during the COVID-19 pandemic have shown, traditional analog methods are too labor-intensive and only create a society that fails to consider many people. By using the digital well, we will finally be able to aim in a direction of inclusion that can support individuals, which has not been possible in the past. What we ought to do now is to use this new option and move forward toward the future, obviously while also respecting the merits of the analog as well.

Interviewed by Toya Koichi

Translated from "Korona de roteishita zeijakusa: Nihon wa 'Dejitaru haisen' kara fukkatsu dekirunoka Weaknesses Exposed by COVID-19: Can Japan Recover from the "Digital Defeat"?)," Chuokoron*, October 2021, pp. 94-101. (Courtesy of Chuo Koron Shinsha)* [November 2021]

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