

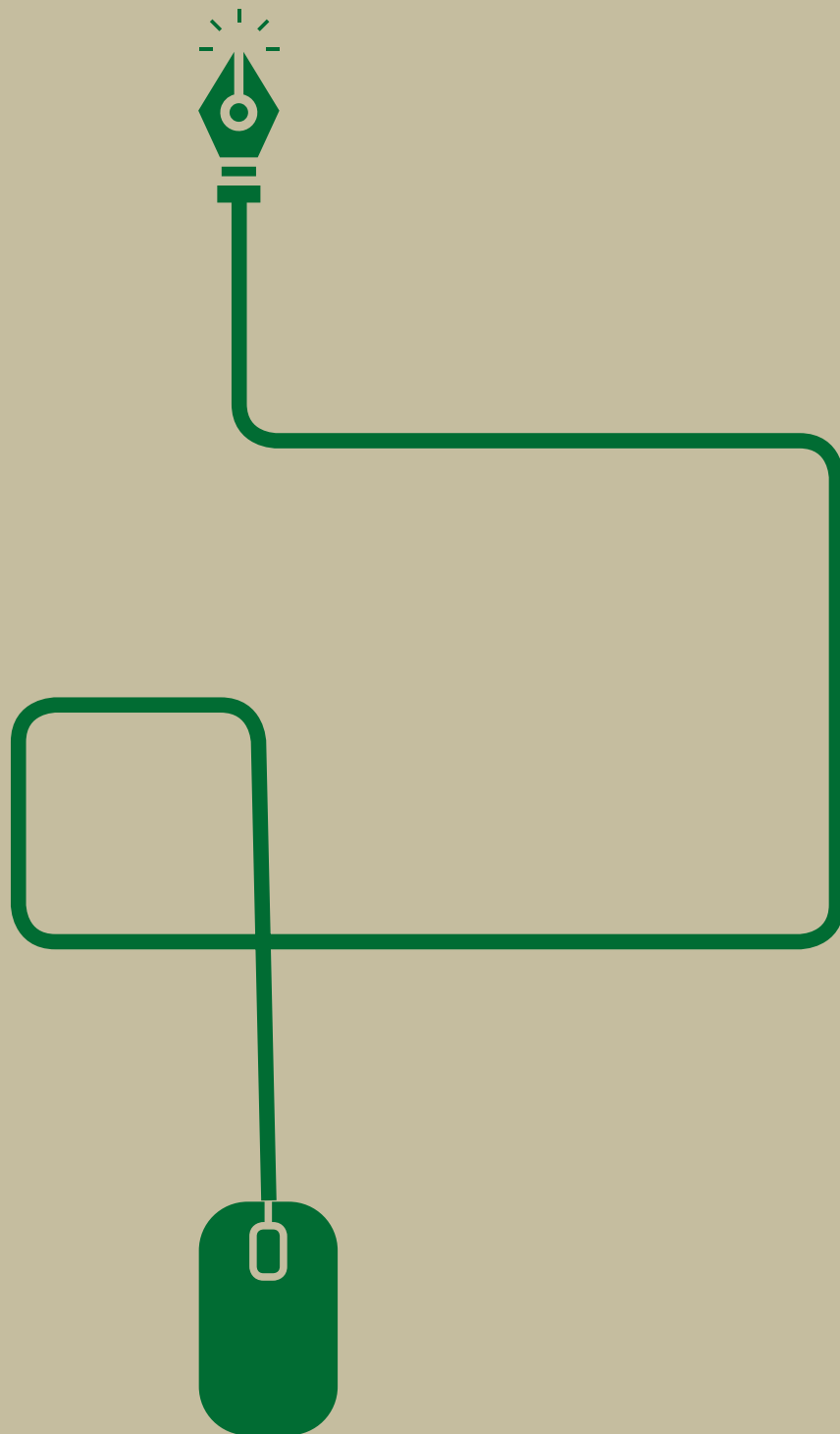
Works  
Report

2021

# Reskilling



Human Resources Strategy in the Digital Age





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# Reskilling

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# Introduction

The word “reskilling”/“re-skilling” is rarely used in Japan today. The term originally referred to vocational redevelopment and reeducation. In recent years, however, it increasingly has been used to mean the redevelopment of vocational skills to find new work in response to the digitalization of society or to corporate digital transformation (DX). A key topic of discussion, the wealth of information available on reskilling increases every day, especially in English-language news sources.

Digital technology is changing the way that companies create and deliver their products and services. In Japan, with the exception of a few companies, the pace of adoption of DX has tended to be slow and measured. However, the novel coronavirus infection (COVID-19) in 2020 turned the situation on its head. The physical constraints on delivering products and services face-to-face are fueling increased interest in providing services and manufacturing capabilities on a non-face-to-face or digital basis. The global pandemic thus has acted as a catalyst for change in DX. We examine this in more detail later on.

If DX is to be realized successfully, a company must have more than just superior talent or key staff in policy-making positions who work on DX strategy. Digital technology transforms methods and processes for a broad range of corporate activities. These include planning, manufacturing, sales, delivery, settlement and receipt of funds from procurement of raw materials to inventory management. Workers on the frontline of their field need an understanding of these new digital methodologies and proficiency in using them. In so doing, they contribute to the creation of new value. Successful realization of DX, therefore, requires the rapid reskilling of large numbers of employees.

This report provides an overview of today’s corporate environment and the age of DX while examining how interest in reskilling is gathering momentum worldwide. It goes on to explain why Japanese companies need to prioritize reskilling with immediate results.

The responsibility of reskilling does not only lie on employers, but, in this day and age, they clearly have the best interest in reskilling. This report will be of interest to anyone engaged in developing and implementing DX strategies or tasked with considering effective ways of utilizing talent against the backdrop of strategic change. The information will give you insight into the relevance and necessity of reskilling.

February 2021

Recruit Works Institute

“Reskilling in the DX Era” Project Team

## Sign of the Times: The Corporate Environment

# Today

## Dawn of the DX Era

We now live in what can be described as the era of digital transformation (DX). According to the Japanese Ministry of Economy, Trade and Industry, the definition of DX is “The utilization of data and digital technology by companies in response to a drastic change in the business environment, based on the needs of customers and society, to transform products, services, and business models, as well as transform the underlying business, organization, processes and corporate culture and mindset to establish a competitive advantage” (DX Promotion Indices).

The notion of “transformation” has connotations beyond reform and improvement; it implies fundamental redesign and non-linear evolution.

### DX: Multi-stage process with a Broad Range of Applications

Primarily an independent survey of companies and IT human resources, the Information-technology Promotion Agency (IPA) publishes its IT Human Resources White Paper every year. In recent years, the survey has asked companies: “What DX initiatives are you currently working on?”

When looking at the response options, one sees various differences in levels and objectives for what generally is called

“DX.” The broad range of principles encompassed by DX is shown in the diagram on the next page. These principles demonstrate the multi-stage process of DX along with its many applications.

Clearly, the implicit assumption in the responses is that all these initiatives utilize digital technology in some form or another. The first objective focuses on digital transformation at the process level to make the same product more efficient (“Increasing productivity through operational efficiency”). The next two objectives become increasingly harder to implement (“Adding value to existing products and services” and “Creating new products and services”). The second one involves some kind of improvement while the third involves somewhat of innovation. Opinion remains split on whether companies desire to achieve the fifth level, “Fundamentally changing the corporate culture and organizational mindset.” In contrast, due to its comprehensiveness, the true value of DX lies primarily in the fourth objective, “Fundamentally changing the current business model.”

The evolution of digital technology has made it possible to store various types of analog information in digital format as data. Rerunning collated data using digital technology enables the rapid implementation of functions such as complex analysis, simulations and hypothesis testing.

The process of creating and providing goods and services continues to undergo far-reaching change as a result of digital



## Core Objectives of Digital Transformation



Increasing productivity through operational efficiency



Adding value to existing products and services



Creating new products and services



Fundamentally changing the current business model



Fundamentally changing the corporate culture and organizational mindset

Note: "DX and Digital Business Initiatives and Results." IPA survey of companies involved in digital business activities. The five core objectives are shown on the left.

Source: Recruit Works Institute diagram based on Chart 1-1-13 of "IT Human Resources White Paper 2020" (Infrastructure Center, IPA)

technology. This evolution is leading to the development of new connections and networks throughout society. Effective utilization of these enables companies to offer new products and services that are completely different to those provided previously.

Automobile manufacturers provide one such example. These companies originally supplied vehicles to their customers. They now claim to offer "smart mobility" (the ability to move more freely and smartly); thereby changing the value that they provide. As DX is implemented, the value of what companies provide to their customers also changes. DX focuses on issues such as what resources to use and what value to provide to customers. As communicated in fourth objective, it requires fundamental changes in a company's business model as well as its business strategy.

## How Competitors Emerge without Warning

New companies that either did not exist previously, or else operated in entirely different industries, may suddenly emerge as a competitive threat because anyone and everyone has access to new technology. Thus, for any business where DX is concerned, no threat should be underestimated as a "fire on the other side of the river," something too remote to

become a problem for a company or the industry in which it operates. Digital technology has an unerring ability to replace or eliminate the use of intermediary functionality that previously only was available in analog. This is happening in the real world today, whatever the industry, whether it be automobile manufacturing, retail, taxi operators or the hotel and lodging business. The adoption of DX is inevitable for all Japanese companies and industries.

## Urgent Need for DX

In Japan, although the necessity for DX is widely recognized, progress in implementation has been slow. However, the global crisis precipitated by the pandemic in 2020 has forced many businesses to make major changes in the way they operate. In particular, with restrictions in place on the ability to deliver goods and services face-to-face, companies realize they no longer can put off thinking about how to provide value fulfillment online without physical movement of goods whether through the cloud, for example, or delivery without human intervention. The increasing adoption of DX, transforming businesses with digital technology to provide solutions to these issues, is an inescapable process. It cannot be emphasized too strongly: the time for DX is now.





## COLUMN

### Fujifilm's strategic shift and HR strategy

seeking to digitalize its production process.

This approach enables companies to acquire a large block of the workforce that they require all at once, rather than through a process of individual hires. However, this approach does not always work. For instance, if the organizational cultures clash, many key workers could end up quitting in short order.

The fourth HR option is a “spin off” such as converting back office divisions into a shared services company or transferring sales and service units to an external company. A spin-off company can establish its own personnel system and remuneration levels separate from the parent. In addition, employees can focus on specialist careers aligned with the activities of the new company. In this case, recruitment policy is concentrated solely on hiring talent suited for specific roles. Another advantage is that the parent company then consolidates its business with the appropriate number of employees required for the new strategy.

These are some of the successful approaches from the past when companies reorganized their workforce capabilities (including modification and transformation of them) to facilitate strategic change.

Fujifilm is an excellent example of a successful conversion of workforce capabilities in line with a strategic transformation. The company decisively shifted its business in the 2000s from photographic film, a shrinking industry, to cosmetics. What did the company do to transform its workforce during this strategic shift to survive? At first glance, cosmetics appear to be a totally different business from photographic film. In reality, however, the principal raw material for photographic film is collagen, which is also one of the main components of human skin. Therefore, the knowledge and technological expertise accumulated by the company in the film business also applied to the development of the cosmetics production. “Although the products we make are different to before, the scientific basis of these products is actually the same. Hence, with a change in mindset, our product development employees could leverage their existing knowledge and technical capabilities to make these new products,” reports Mr. Yoshisada Nakamura, Innovation Architect at Fujifilm’s R&D headquarters. In other words, despite undertaking a major strategic transformation, the company did not have to replace employees on a large scale or realign its development capabilities. However, unlike competing in an oligopolistic market, the cosmetics market comprises a variety of different-sized companies with “customer appeal” a key criterion for success. “It took quite a bit of effort for the developers to appreciate this” says Mr. Nakamura.

“In fact, we made major changes not just in development but also downstream, in distribution and product sales.” Previously, Fujifilm had delivered its products to a nationwide sales network. However, it had no route to market for its new cosmetics business. As a new entrant, the company initially encountered extreme difficulties in gaining access to the market, for instance, through drug stores. Therefore, the company started selling its products via mail-order. It did not have telephone operators in-house so had to outsource this function. In addition, they set up a team to develop a strategy for targeting new customers.

Behind the impressive transformation, the company reassigned employees to different roles and redeveloped their capabilities. They also restructured about 5,000 employees in Japan and overseas.

Fujifilm is thus a benchmark case study of a company that has successfully repositioned its employees to align with a major strategic transformation.







## COLUMN

# Reskilling and Upskilling

digital expertise should be limited to business strategy planning or to the development of core systems. Rolling out full-scale DX means that different skills and abilities are required for all aspects of the business process and the value chain.

## Effective Adoption of DX Requires Reskilling

All employees in every process of the value chain need to acquire new skills to “create value digitally.” No DX strategy can be accomplished unless accompanied by a coherent human resources strategy. It would be wishful thinking to expect otherwise.

Reskilling, the successful redevelopment of employees’ core competencies at scale to create value while leveraging the power of digital technology, is indispensable for the successful adoption of DX. For many companies, it is simply not a realistic proposition for them just to dismiss employees who do not possess the requisite digital skills and replace them with digital personnel through external hires. Reskilling is thus inevitably a novel HR strategy for the DX era.

## Key Strategy for Survival

Reskilling provides a key strategy for survival. Let us take the example of introducing robots to carry out manufacturing processes previously done by humans. In this case, while manual product assembly and welding roles will become redundant, new roles such as operating the robots or resolving system errors are created. Workers with active roles on the production line can continue to contribute to value creation in the company by learning these new skills. This is the essence of reskilling.

DX will not succeed unless as many employees as possible acquire new value-creating skills to help companies navigate the DX era. Conversely, unless this happens, there will inevitably be situations whereby jobs are lost through the introduction of digital processes and AI.

Reskilling is therefore critical for the survival of companies and individual workers in the DX era.

“Upskilling” is a frequently used word alongside “reskilling.” Both terms are commonly used in the context of skills development. The growth of DX means they have taken on new meanings.

For example, if workers on a production line become software engineers, this counts as reskilling. On the other hand, if a junior accountant becomes a senior accountant or learns to use IT tools applicable for financial analysis, upskilling has taken place. However, the demarcation between the two worlds sometimes is not so clear. For example, even for the same job, if a salesperson in the field can transition to doing their job solely online or via the cloud that can be referred to as reskilling or upskilling. In this report, if the value created by the same job changes due to digitalization, this is considered to be reskilling. DX requires reskilling and upskilling at the same time. However, unlike upskilling, an extension of an existing role, reskilling can apply to jobs that do not even exist yet. These jobs may initially have to be done without any guidance from senior, more experienced workers. In these situations, companies need to develop a platform that goes beyond OJT.



### RE-Skilling

Learning new skills to switch to a different job, especially a digital job. The worker’s duties and the value created are fundamentally different compared to previously.



### UP-Skilling

To develop skills to make a step up in an existing job. The worker’s productivity and the degree of difficulty of the duties increases.

# Global

Focus on Reskilling

## Increased Worldwide Momentum

Worldwide interest in reskilling has increased in recent years. The World Economic Forum (WEF) has advocated the importance of reskilling throughout society since 2018. According to a report issued by the WEF, “Towards a Reskilling Revolution,” a systematic commitment to reskilling would ensure that as many as 95% of people with displaced jobs could transition to new careers, even if the work changes drastically because of digitalization. On the other hand, without reskilling, the number drops drastically to 2%. In light of this, the WEF’s annual meeting in January 2020 announced the launch of the “Reskilling Revolution Platform” with the goal of reskilling 1 billion people worldwide by 2030. The platform coordinates new policy instruments and corporate initiatives across various countries, going beyond the boundaries of government, business and education.

### More than 430 Companies in the US Have Started Reskilling

Around the same time that the WEF launched its reskilling initiative, the US government started its own retraining and skills education initiative for domestic workers. In July 2018, President Donald Trump established the National Council for the American Worker. The council comprises 14 federal

government agencies, including the Department of Labor, Department of Health and Human Services, the Department of Education and the National Science Foundation. The council’s mission is to develop strategies for reskilling and vocational education for US workers.

In the same year, the American Workforce Policy Advisory Board was established to provide advice and recommendations to the council. A collaborative group spanning a range of sectors, membership includes representatives of private companies, educational institutions, state government agencies and other organizations.

The Trump Administration is asking companies and trade groups throughout the country to sign a “Pledge to America’s Workers,” committing to programs to train, reskill and upskill American workers between now and 2025. As of August 2020, more than 430 companies had signed the pledge, contributing to new education and training opportunities for over 16 million people. Signatories include US companies such as Apple, FedEx, Ford, HP, IBM, Mastercard and Walmart, as well as the US subsidiaries of overseas companies such as Canon, Samsung, Shell and Toyota.

Ivanka Trump, Advisor to the President, spoke at the WEF’s annual meeting. Co-chair of the National Council and the Policy Advisory Board, she now is a leading figure in the initiative for reskilling in the US. She said that “Industry

knows what jobs they are going to be creating and what jobs they are going to be displacing through AI. Effectively, the corporations themselves are responsible for ensuring their workforces acquire the skills they need for their new jobs.”

As a core prerequisite for reskilling, the National Council advocates that companies take an inventory of the skills required for their work and then implement skills-based hiring practices accordingly. Many companies in the US place a high premium on educational backgrounds. As such, academic qualifications or degrees are often a factor that determines what occupation one can pursue. However, the skills required do not necessarily correlate with a university degree. It also can take time to incorporate new areas into the curriculum of educational institutions. Thus, in June 2020, President Trump issued an executive order for federal agencies. They are required to review the hiring criteria for federal job candidates and to focus on merit and skills rather than degrees.

A review of the apprenticeship system was also launched, based on the notion that the skills required for newly created jobs can more appropriately and quickly be obtained through experiential training rather than through college or university. The US Department of Labor pledged \$300 million in financial support to create an apprenticeship system for industries such as cybersecurity, technology and healthcare which currently do not have apprenticeships.

## Reskilling Platforms for Companies

Reskilling requires a visualization of the skills needed for new jobs and programs that enable workers to gain those skills in a short period of time. A variety of platforms already support this, such as SkyHive and pymetrics. These platforms utilize realtime labor market data to understand the jobs that are emerging and the skills required for them. The technology also analyzes existing skillsets of their clients’ workers. They identify workers who are more likely to be comfortable transitioning to new jobs and acquiring the skills needed to do these new jobs effectively.

Salesforce (which operates the online learning platform “Trailhead”), LinkedIn, EdCast and MOOC (massive open online course) providers, such as Udacity and Coursera, are

examples of platforms that provide practical programs enabling workers to acquire necessary skills over a short period of time.

## Reskilling Initiative across Europe

The shortage of digital talent is also an issue in Europe. As such, EU countries have a particular focus on reskilling. Since 2016, governments have been working on initiatives to offer adults who do not have basic reading, writing, mathematics or computer skills an assessment of their existing abilities and the opportunity to acquire these skills based on their circumstances and situation.

The Digital Europe Programme is due to launch in January 2021. One of its principal aims is to expand the digital talent pool with latest technology skills to around 260,000 people by 2027. The program has a budget of EUR 600 million. It will focus on short-term specialized training courses for students and working adults, long-term training and Master’s programs, as well as support for OJT and internships in companies and research institutions where advanced digital technologies are used.



# AT&T : The Reskilling Pioneer

AT&T, the telecoms carrier and giant media conglomerate that owns Warner Media, has led the way in the US in recognizing the need for reskilling its employees through embarking on an innovative retraining initiative for its workforce.

Although AT&T has reorganized and integrated its business many times over the past 100 years, changes in its business environment since the 2000s have been particularly dramatic. As smartphone use has increased and the speed of communications has accelerated, the company found it increasingly difficult to remain competitive purely through innovation in the company's hardware business, traditionally AT&T's core revenue base. In response to this, management decided to replace 75% of the revenue the company derived from hardware with revenue from operating software by 2020.

## Reality Check: Internal Research Findings

An in-house study conducted by AT&T in 2008 revealed some uncomfortable truths. It concluded that only about half of AT&T's 250,000 employees had the science and engineering-related skills required for the company's activities. In addition, approximately 100,000 employees were engaged in hardware-related jobs that would not exist in 10 years' time. The results of this internal research was the reason the company undertook

what is considered one of the most ambitious reskilling initiatives in US corporate history. The task began by identifying the skills and capabilities required in its workforce for 2020. Based on this, AT&T created a blueprint for transitioning from the skills possessed by its employee base at the time. Launched in 2013, this blueprint became known as "Workforce 2020." Workforce 2020 envisioned an investment of \$1 billion in reskilling 100,000 employees by 2020. First, they created an environment that promoted reskilling and was conducive to internal personnel transfers. The required skills and abilities for roles within the company were identified and jobs with similar skills were standardized and integrated. In addition, the company introduced a remuneration system to offer incentives to those who acquired the skills deemed important to the company and to employees who performed well in job-related training courses.

The second key initiative was to provide employees with a "Career Intelligence" tool as an aid to their career development. The tool enables employees to search for opportunities within the company. It also allows them to access information such as future prospects and potential salary ranges for specific departments along with the skills required for the jobs of interest. Additionally, the tool helps management understand the distribution of skills within the organization and see where the gaps are.

The third initiative dealt with the development and provision of

## AT&T's Reskilling Initiatives



online training courses. In addition to enabling workers to earn credits for completing courses on topics such as web development, data analysis or programming in collaboration with external educational platforms, the company partners with other universities to offer degree programs in subjects such as data science and cybersecurity. For example, AT&T provides courses for engineering roles and a master's program in computer sciences in partnership with Georgia Institute of Technology. It also has an in-house internship system that allows employees who have gone through reskilling to try out new roles for a certain period of time.

As a fourth measure, AT&T launched a one-stop learning platform for employees in 2017, "Personal Learning Experience." Using this, employees evaluate their skills and search for currently available roles within the company. Based on their results, they can learn what courses are required for doing the job and then manage their training accordingly such as booking courses or updating their learning status.

## Employee Learning through Transparency and New Opportunities

AT&T's reskilling project does not force employees to train or

order them to participate in the program. Rather, the availability of transparent information about new employment opportunities within the company and the skills required, along with the provision of appropriate learning opportunities, is a way to indirectly support employees, helping them to autonomously map out their careers and undertake reskilling as required. AT&T has stated that 81% of the company's technology jobs currently are filled internally. In terms of comparing employees who participate in the reskilling program and those who do not, reskilled employees did 1.1x better than non-reskilled workers in terms of year-end appraisals, 1.3x in terms of awards and commendations, and 1.7x in terms of promotions. In addition, turnover is 1.6x lower for reskilled employees. Against the backdrop of a rapidly changing telecoms industry, successful reskilling has enabled AT&T to secure the skilled talent the company needs for driving its future growth.

### Note

Information on AT&T's reskilling initiatives is taken from the following materials and online sources:

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# Companies Embrace Reskilling: Amazon, Walmart

AT&T is just one of many companies currently engaged in reskilling programs for their workforces. Next we take a look at what Amazon, the world’s largest e-commerce company, and Walmart, the retail giant, are doing on this front.

## Amazon: Upgrading the Entire Workforce

Amazon, one of the world’s technology behemoths, announced in July 2019 that it was spending \$700 million to reskill 100,000 US workers by 2025. This equates to an investment of approximately \$7,000 per employee, the largest reskilling investment per head of any company so far. According to their announcement, Amazon looks highly skilled workers in areas such as data mapping, data science and business analysis.

Specific initiatives demonstrate Amazon’s commitment to raising the level of digital skills across its workforce. For instance, the “Amazon Technical Academy” helps non-technical employees transition to technical positions. The “Machine Learning University” teaches machine learning skills to digital practitioners to help them utilize their technical and coding skills.

## Walmart Utilizes VR for Reskilling

Walmart, the world’s largest retail chain, utilizes virtual reality (VR) for its in-house training programs. It deployed VR equipment in five stores on a trial basis in 2016 and followed up in September 2018 by rolling out around 17,000 VR units in stores nationwide in the US.

The company has programs to help trainees prepare for key but infrequent events such as the annual “Black Friday” sale or for crisis situations such as natural disasters. The practical skills picked up through VR ensure that employees are ready to deal with these situations even if they have no actual experience. VR also can be used to help train workers in advance to handle new technology when installed. An example is the “Pickup Tower,” a dedicated unit that allows customers to retrieve products at the store that they have ordered online. With the rollout of new technology continuing apace across the retail industry, Walmart is committed to leveraging technology to help its employees acquire the necessary skills to deal with the changes brought on by DX.



COLUMN

Rationale for Making rather than Buying

## Broad-based, Versatile Platforms

While large companies like Amazon and Walmart can invest huge sums on reskilling their workforce, many companies do not have the resources to develop their own reskilling programs or to invest heavily in doing so. The key for them is to use online learning programs from platform service providers.

Many platforms are currently and easily available. Salesforce's Trailhead and MOOC's such as Udacity are well established as free, publicly-available online learning platforms. Other platform operators recently have begun to offer reskilling programs for companies and their employees. For example, Circus Street in the UK offers DX-based training programs for European companies. Their clients include Sanofi (pharmaceuticals), Orkla (grocery market solutions and products) and Nestle (food manufacturing).

Thus, when employers begin reskilling their workforce, they can make effective use of a range of services from a platform provider, rather than going to the trouble of putting everything together themselves.

Typically, the default approach on personnel for US companies undergoing strategic transformations has been restructuring and acquisition. However, thanks to the growth of reskilling, resolving the issues through retraining in-house is becoming an increasingly popular alternative solution. What has driven this change? There are three factors to consider: the market, the company and the individual employee.

### The Market: Labor Shortage Issues

The first major factor is the shortage of talent. Readily available skilled practitioners in areas such as data science, AI and machine learning are hard to find in the labor market. Since DX is happening across all industries, competition for this type of talent is inevitably fierce. Companies tend to lose out to the big tech giants or tech startups as more attractive places for these people to work. Since the expertise cannot be brought in externally, the only solution is to develop this talent in-house.

### The Company: Cost-effective Approach

According to a study by the Wharton School of the University of Pennsylvania, recruitment (Buy) is more expensive than reskilling (Make). Newly brought in employees are less productive than reskilled workers for a year or two after hiring. Internal retraining also can be more conducive to the preservation of corporate culture. Overall, therefore, companies are coming to the conclusion that internal development of workforce is a more cost-effective solution.

### The Individual: Growth Opportunities

What individuals want from their employer is changing. As the increased usage of the term "employee experience" suggests, an individual's view of the experience of working at a company has become a key factor in determining whether that person accepts an offer or not. The "learning environment" is also a prime consideration, insofar as it reflects the extent of a company's commitment to an employee's learning and skills development. In the fast-changing era of DX, individuals want more than just a guarantee of an existing job. They appreciate and desire an employer that invests in giving them the skills they require for getting new jobs in future. In the future, companies with the organizational capability of "nurturing their workforce" are likely to be more attractive to prospective candidates than those without this capability.

# Japanese

## Companies and Reskilling

# Japanese Employment Practices and Reskilling

One of the key characteristics of Japanese employment practice is the continuous development of employees through job rotation and OJT. In terms of the employee development process described on the previous page, “Making” is something that Japanese companies are good at. In that sense, the concept and usage of the term “reskilling” is not as widespread in Japan as overseas, probably because Japanese companies do not consider it a particularly novel approach.

Certainly, continual job rotation is a standard practice at Japanese companies. New arrivals in the workplace update their skills through OJT, practical experience while actually doing the job. In addition, reassignment to departments totally unrelated to an employee’s existing field of expertise and acquisition of skills through OJT have shown to be effective, even for strategic transformations such as factory closures or withdrawal from a business domain. Rather than letting go of a large number of employees, Japanese companies typically offer continuous employment by transferring them in a block to another production base or department (even if this means that employees have to relocate). In this way they acquire the knowledge and skills required for their new roles by actually doing the work.

This approach is deeply embedded in Japanese corporate culture and is clearly different from the reskilling required in the DX era. Appreciating this difference is the first step that Japanese companies need to take if they genuinely desire to

adopt reskilling.

## Talent Development at Japanese Companies : Reassignment and OJT

Japanese employment practices have many defining features of talent development. The practice of long-term employment (“jobs for life”) is said to have been established at Japanese mid-sized companies and upwards in the 1970s. At that time, they searched for ways to avoid employees dismissals after weathering the oil crisis. Japanese companies have rigorous employment obligations rooted in social convention and legal precedent. Underlying these, however, and to facilitate their ability to fulfill these employment responsibilities, they have been granted extensive rights in terms of their ability to order employees to change jobs or to reassign their duties.

When employees join a company as new graduates, the premise is that they have no previous vocational ability or experience related to the department or division to which they are assigned. They start building their vocational abilities through practical workplace experience or OJT. The majority of companies transfer employees to different jobs over a three





to five year period on a regular/irregular basis. Except for science-related specialist roles, it is not uncommon for workers to be assigned to roles for which they have absolutely no prior experience.

After six months to a year, they will be fully capable of doing the job effectively without any issues. The rationale of this approach to rotation and staff development is that employees should be able to accumulate the skills and knowledge they require through practical experience in the workplace.

Relocations that would be unthinkable in a non-Japanese company, such as transferring an employee from domestic sales to overseas marketing, even without experience in the latter, are seen as an opportunity for employees to expand their core competencies. This approach has been regarded as an opportunity to expand capabilities and actually and indeed has been working. In addition, employees who have worked in different roles and locations because of job rotation gain valuable insight into the company's individual culture and dynamics. These policies also provide the company and employees with an expansive internal network to draw upon in future. Japanese companies place great emphasis on organizational capabilities and a collaborative approach. Employees with this kind of company-specific knowledge tend to be promoted to higher positions within the company. Japanese employment practices have an embedded mechanism whereby workers gain new skills through

proactive work experience. The remuneration system widely adopted by Japanese companies in terms of wages and salary is based on an assessment of employees' ability to do a job. If remuneration is based on a worker's perceived ability, their salary will not change even if their professional duties change. This somewhat relaxed approach with guaranteed remuneration means that companies can be flexible about transferring employees between different roles. At the same time, workers can embrace the opportunity to acquire new capabilities in the different departments without worrying that their salary might fall.

## Japanese-style Linear Employee Development vs. Non-linear Reskilling

Japanese companies have used OJT in this way to develop their talent with a wide range of experience and skills. To them, reskilling, which is effectively the development of skills that enable workers to take on new and different professional duties, might closely resemble their existing strategy.

However, an important distinction must be kept in mind. The purpose of reskilling in the DX era in the context of this report differs materially from that of Japanese-style HR



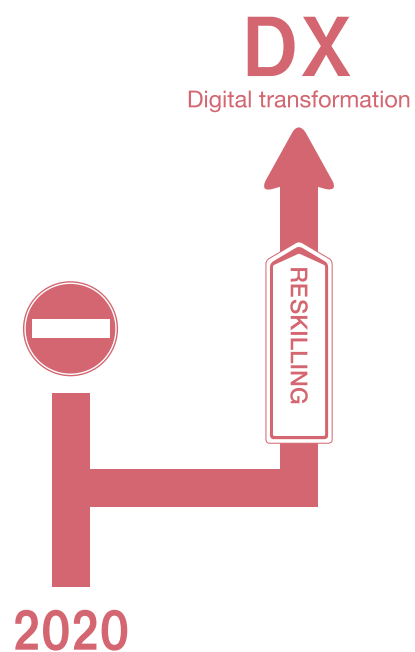
strategy. Japanese-style talent development presupposes that the management and business strategies currently in place continue into the future. This is the basis on which this approach works: newly appointed employees learn about existing ways of working with respect to the business, the company's operations and the roles therein. In this respect, it is talent development within a "linear system."

On the other hand, reskilling, which applies in the case of major strategic transformations such as the adoption of DX, is a "non-linear" HR strategy. Based upon a major change in management strategy, the rationale is that employees acquire the skills necessary for a business, operations and roles that do not necessarily exist within the company as of yet.

As we saw in the case of AT&T earlier in this report, a major shift in business strategy can result in a large surplus of workforce with skills that will become redundant in due course, and a shortage of those with the skills that will be required in future. Just as AT&T carried out a reskilling program for employees that did not have the skills they needed, it seems reasonable to expect that many Japanese companies will take the reskilling option for their workforce in future rather than dismissing them. What is required, though, is a readiness to go beyond linear OJT. This can be accomplished through identifying the capabilities that the organization will need in the future, closing the gap with the existing capabilities of the organization in a short period of

time and investing appropriately to realize this vision.

The question is: in an environment where there are no experienced or senior employees who already have the skills required who can pass these on, and where it is difficult for employees to acquire these skills through actually doing the work, what is the best way of reskilling a workforce to facilitate a new business strategy? Finding an answer to this is critical to the overall success of implementing a reskilling program.





# Best ways to Reskill

Japanese companies, as already stated, can no longer afford to delay a move to DX. Likewise, reskilling has become an urgent priority. Naturally, many companies lack the staff who can create a DX strategy, plan out the necessary core systems and then help put them in place. Realizing a DX strategy depends on more than just filling in these gaps. Delivering new value to customers in new ways that seamlessly blend in digital technology inevitably will bring about dramatic changes for all business processes. The success or failure of a company's DX strategy lies not only upstream in the value creation process, but also in the successful development of customer contact points and the manufacturing frontline. Effectively, this means reskilling the workforce.

As a practical issue, how can companies move forward with a large number of their employees to quickly acquire skills that they do not possess on a non-linear basis? If employees do not have the requisite skills in-house, just taking a few general IT and digital courses will not have the same benefit as picking up the skills necessary through practical experience in the workplace.

Key points for consideration include: 1) External courses are effective for picking up basic skills and 2) A business transformation needs to be closely accompanied by appropriate skills training. First, many courses and programs already are in place out there for learning skills such as basic

knowledge of digital, methods concerned with building and modifying websites (and related issues), robotic process automation (RPA) programming, database management and rudimentary code writing. External resources are a useful way to pick up these kinds of general skills.

On the other hand, once this knowledge and skill is acquired, how can these effectively be applied in the business? This is where OJT and trial-and-error come in. We already have pointed out that reskilling is more than just OJT yet this component is a critical complement. We expect ad-hoc workplace situations to emerge where new skill acquirers keep joining the value-creating workplace that is run by those who have obtained these new skills and techniques a little earlier. Practical training enables workers to pick up tips and tricks that cannot be gained from general theory and deskwork. They also gain insights on key issues that do not get mentioned in textbooks. It is an ideal way of sharpening skills while simultaneously continuing to learn. On-the-job training, therefore, is essential for rounding out a reskilling program.

This discussion shows the need for a dual focus on DX and reskilling. Ideally, companies planning to adopt DX will start developing a reskilling strategy at the same time.

## INTERVIEW

# Preparing the Ground for Reskilling the Workforce

Are Japanese companies ready for the DX era? What are their prospects for success in reskilling their workforces? To answer these questions, we interviewed Professor Takashi Nawa, visiting professor at Hitotsubashi University and an expert in DX in the corporate sector.

"When companies undertake DX, they often start with a small, stand-alone project and take it from there. However, even when the initial project goes well, if you can't apply this to your core assets on a large scale basis, then you've not really achieved anything. If nothing changes in terms of your core assets, what is the point in the end? The same is true with reskilling."

Companies are falling over themselves to acquire top-class digital talent for developing their DX strategies. "But the real challenge is finding ways to ensure that middle-ranking and front-line staff create value in a digital environment," says Prof. Nawa.

Currently, there is a push in Japanese companies to scale back on the assets they do not need. Those who are aware of this trend will embrace the opportunity to reskill when offered. They know this is a necessary step for securing their survival. "The problem is those companies that tend to close their eyes to the fact that they are overstaffed. If a company prides itself on a successful track record based on the existing skills within its organization, that in itself is an obstacle to change."

Japanese companies long have emphasized the importance of skill and craft as key components of manufacturing expertise.

Prof. Nawa believes that even if Japanese companies have respect for what can be

achieved through tacit knowledge as opposed to an instruction manual, they have not taken this to the next level by formalizing the development of these skills within the organization. He explains, "As the term 'creative routine' suggests, creativity can be a routine process, something that can be replicated. This may be anathema to craftsmen who pride themselves on their individual skills. However, they should be encouraged to continually set their sights higher: whatever they achieve this year is now done and can be formalized for the others. So the following year they should strive to do something even more challenging. Who wouldn't feel motivated by that?"

The ability to reskill people is also important for companies if they want to win in the war for talent. "The key point here is to recognize that in the future, employees will see corporate organizations as places that they 'pass through' like transit points. Whatever happens, everyone eventually leaves the company they work at. So if you think in terms of what makes an organization an attractive transit point for a prospective employee, training environment and learning experience at the company are right at the top of the list," says Prof. Nawa.

He also points out that a DX strategy should not focus solely on digitalization itself. "What you actually transform using digital is much more important. I'm specifically referring to the 'business' and the 'people.'"

"People Transformation" utilizing digital technology and reskilling are the first steps towards this.



**Professor Takashi Nawa**

Visiting Professor, School of International Corporate Strategy, Hitotsubashi University Business School

Graduated from the University of Tokyo Faculty of Law and Harvard Business School. Following a career at Mitsubishi Corporation and McKinsey, he has taught at Hitotsubashi University since 2010, and has been engaged in the planning and implementation of management strategies for Japanese companies.

## SPECIAL REPORT

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# Reskilling as a Remedy for Technological Unemployment

Restrictions on economic activity to combat the global pandemic have led to an unprecedented deterioration in unemployment around the world. Face-to-face industries, in particular, where services and products cannot be provided remotely, have been hit by severe recession and unemployment. On the other hand, many companies in industries that can provide non-face-to-face digital services are achieving record profits. The current increase in unemployment is just one of the knock-on effects of the “technological unemployment” that accompanies accelerated automation and the digitalization of the workforce.

## Solution to Technological Unemployment

Technological unemployment is a social issue resulting from the automation of working practices and the loss of jobs through technological change. In 2013, Professor Michael Osborne (at the time, Associate Professor, University of Oxford, UK) co-authored a highly regarded study covering this topic and examining the potential impact of technological unemployment in the US.

Since then, preventing technological unemployment has been a hot topic of debate in Europe and the US. One of the most commonly cited solutions in response to an increasingly digital society is the reeducation of the

workforce or the introduction of reskilling programs. Although companies need to adopt DX, the supply of digital talent across the labor market as a whole remains insufficient. In other words, in addition to the reskilling carried out by companies with their own workforces, we have an urgent need for reskilling throughout society and action to increase the number of people with the skills required to keep work on a continuous basis while contributing to the digital economy.

## Major Companies Offer External Reskilling Opportunities

In June 2020, Microsoft announced an initiative with its subsidiaries, LinkedIn and GitHub, to provide a free global reskilling program, the Global Skills Initiative for 25 million jobseekers worldwide affected by the pandemic. According to Shin Murakami, country manager for LinkedIn Japan, as part of this initiative, LinkedIn planned to offer free learning programs in Japan for four digital skills. The fact that high-ranking Microsoft executives (e.g., CEO Satya Nadella and President Brad Smith) backed this initiative underscores just how important reskilling is for future corporate strategies.

Companies, of course, have a social responsibility to

provide support to jobseekers impacted by the pandemic. Notably, in addition to the social significance of its initiative, Microsoft's own future revenue growth prospects clearly are linked to these proactive actions. Offering free reskilling programs to support unemployed workers is a way to encourage these individuals without much previous digital exposure to become Microsoft customers.

The number of companies starting to use Microsoft Teams, the cloud communications platform, is increasing rapidly worldwide due to the spread of remote working. In addition to the proprietary Global Skills Initiative learning programs, Microsoft plans to make third-party reskilling courses available on Teams. Companies that use Teams as their day-to-day communication tool will have one-click access to reskilling programs for their workers. The addition of this new reskilling feature means more companies are likely to consider subscribing to Teams.

These actions enhance Microsoft's brand by the association with social responsibility while simultaneously securing existing customers and attracting new ones to its services.

### Importance for Individual to Acknowledge Need for Own Reskilling

Unfortunately, not much momentum exists so far in

Japanese companies in terms of providing programs that help society as a whole to expand its skills and capabilities. However, for Japanese society in general, the time is right for a broadly-based reskilling of the workforce focused on digital transformation. If concrete action is not taken to keep people in work, technological unemployment will accelerate, exacerbated by the impact of the pandemic, with possibly a further widening of the income gap. This is not just a challenge for individual companies, but an issue that demands the attention of society as a whole. While companies have a responsibility to commit to this, it also will naturally benefit them.

In addition to the companies, workers currently employed must acknowledge their own need for and the importance of reskilling for their future prospects. Rather than just relying on the reskilling opportunities offered by their employers, workers need to shift their mindsets to adapt their skills in response to digital change.

Increased awareness of reskilling is vital as we transition to a new economic society where digital is inseparably ingrained into every aspect of our lives. Also, an appreciation of the benefits of continuous learning and modernization of our skills is the most powerful solution available to the threat of technological unemployment in our future.



# Conclusion

In this report we have set out to define reskilling and to explain why it is an urgent consideration for society as whole.

As often happens, when concepts or trends coming from overseas are summed up in snappy acronyms, they just become buzzwords to the extent that we do not pay too much attention to what they actually mean for our daily lives or our business. Even until quite recently, the notion of digital transformation or DX was arguably just seen as fluffy business jargon in Japan.

However, digital technology is unquestioningly transforming our world. Whether we like it or not, businesses and individuals are finding out that the ways in which value is created are changing, often at a faster rate than we ever imagined. The global pandemic has had an unprecedented impact on businesses and on people's lives. Nevertheless, the increased resolve by many companies to adopt DX and to proactively manage the accompanying changes should be viewed as a positive development amidst this ongoing crisis.

Developing a DX strategy is also about simultaneously reskilling employees. Some of the key questions that arise when considering DX business plans and strategic transformation scenarios are: What changes are required for employees working in different roles and positions? Do they have the skills and knowledge they need to adapt to the change? How do they acquire these skills and knowledge?

If a company implements DX, success will not happen unless it also puts in place a reskilling strategy and redevelops the competencies and capabilities of its workforce. Reskilling is the first step to ensuring that those current employees continue to contribute to business-value creation.

This ongoing project is intended to provide an overview of specific methods of reskilling based on a dialogue with Japanese and foreign companies and research into successful cases of reskilling. We hope you find this exploration useful as a contribution to the discussion on how Japanese companies and society as a whole can make a success of reskilling. We welcome any thoughts or feedback from our readers.

February 2021  
Recruit Works Institute  
“Reskilling in the DX Era” Project Team

# Works Report 2021

## Reskilling

### Human Resources Strategy in the Digital Age

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