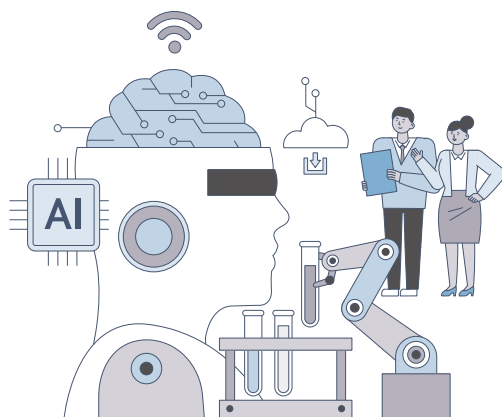


# Transforming the Labor Market and Addressing the Digital Divide in the AI Era



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The rapid development of generative AI technologies such as Chat GPT in recent years has led to major changes in our lives. The way we work in the labor market is also changing rapidly, and we need to respond to this. In particular, workers with low digital capabilities need special measures to improve their digital and AI capabilities in the process of industrial and labor transformation.

## **AI** Advances in AI technology

The recent rapid development of generative AI, including Chat GPT, has generated a lot of interest. This is not a recent phenomenon. It has been in the past and will continue to be in the future. However, there seems to be a debate on whether the recent development of generative AI technology can be treated as a similar phenomenon to past technological developments, or whether it should be treated as a completely separate phenomenon. Generative AI has been around for a long time, but the recent advancements in big data and computer power have made it a big deal. AI advancements are notable for their ability to perform creative mental labor, which has long been considered the domain of humans, and learning, which has long been considered a unique human ability, in a similar way to humans and, more recently, better than humans. In the past, when technology advances, humans have utilized these new technologies as tools, but generative AI is likely to be utilized in a different way. In other words, it is being utilized to replace some of the tasks performed by humans, and it seems that a different response to technological advances is needed. Generative AI technology is still in its infancy, and we don't yet know how far it will go. Therefore, it is possible that it will have a profound impact on our lives and labor markets beyond what we can currently imagine. Let's take a look at how generative AI technologies will affect the labor market and what policy efforts are needed to respond.

## AI Digital capabilities in industrial and technological transitions

The introduction of generative AI is likely to dramatically change the way we work and affect the structure of industries, leading to industrial transformation. The introduction of AI technology is expected to change the way some tasks are performed, if not the entire job, then at least the way they are performed. In particular, tasks that were previously performed by low- and medium-skilled workers are shifting to tasks that can be performed better by generative AI. As organizations adopt generative AI technologies, they will likely choose to replace low- and mid-skilled entry-level workers with generative AI. While existing high-skilled workers will likely remain employed in planning and other roles, organizations will need to find ways to develop high-skilled workers in the future as new hires decline.

This rapid industrial transformation will require a rapid labor transition. First of all, it is necessary to adapt to the introduction of new technologies through education and training so that they can keep up with the new technologies as much as possible. In sectors that are undergoing industrial transformation due to changes in technology and need to change jobs or move to a new field, it is also necessary to support the transition to a new job through career counseling and employment services. In this process, it is necessary to consider how to identify and analyze existing job skills and link them to new jobs. As digital technology (generative AI) changes the way we work, it will also change the way we manage work, which will affect the way we manage human resources. Advances in technology are expected to increase efficiency and transparency in human resource management, and efforts to ensure fairness and acceptance need to be made in parallel.

Even today, there is a digital capability gap in everyday life. For example, the elderly have difficulty utilizing kiosks in restaurants. In future industrial activities, the gap between companies that utilize digital technology well and those that do not is likely to increase. As this gap in digital technology may affect the widening gap between companies and the dual labor market structure, industrial policies and education and training policies are needed to reduce it. In addition, it will be necessary to continuously supply the digital competencies needed to act as consumers or members of society, starting with general education and utilizing continuing education facilities.



## **AI** Building a labor market that responds to technological advances

We need to build a labor market that can cushion the impact of the recent rapid technological advances. In the past, technological changes have caused shocks to the labor market, but through various countermeasures, the labor market eventually transitioned to a new way of working. In the case of digital technology (generative AI), it is expected that there will be initial difficulties in adapting, but it will eventually be able to settle into the labor market. However, in this process, it will be necessary to prepare separate support measures for sectors that are relatively unable to adapt well or have high transition costs.

Recent technological changes may widen the digital skills gap among the population, and efforts should be made to mitigate it. In the past, technology was mainly utilized for production activities, but since the introduction of computers, some knowledge of technology has become necessary for consumption activities as well. A gap in the skills utilized in production activities can have negative effects in terms of balanced and inclusive growth, so efforts should be made to prevent it. A gap in the skills utilized in consumption activities can be a constraint on our activities as consumers and, by extension, as members of society, and should be prevented. In the end, whether new technologies are utilized in production or consumption activities, excessive disparities are expected to have negative effects on society as a whole, so efforts to prevent disparities are needed. ■

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