

# Transformative impact of Generative AI on Reskilling

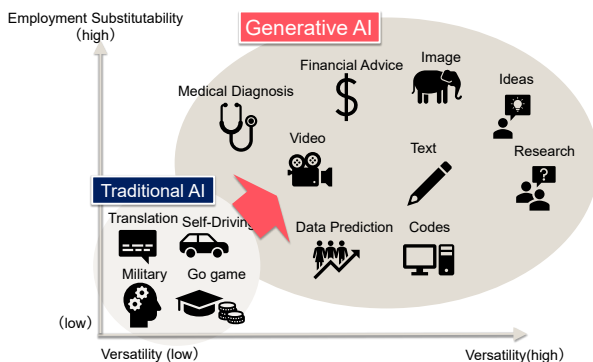
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## Changing the Labor Market Landscape

It has been a year since Open AI released Chat GPT in November 2022. Generative AI has quickly gained popularity due to its exceptional versatility, allowing users from various backgrounds to use it with ease. This stands in contrast to traditional AI, which has been mainly used for specific applications such as self-driving vehicles, military applications, and translation, as shown in Figure 1.

Figure1 Generative AI's impact on employment



(Source) Dai-ichi Life Research Institute

\*The positions in the figure do not represent the exact degree of employment substitutability or versatility.

Generative AI allows even novice users to effortlessly generate text, images/videos, code, and more. This capability is expected to significantly change the labor market by streamlining and replacing tasks typically performed by white-collar professionals.

## Greater Benefits for Less Productive Workers

According to a study conducted by Stanford University in April 2023, generative AI will provide greater benefits to entry-level and low-skilled workers than their more skilled counterparts. The study discovered that employees with two months of experience using generative AI achieved a similar level of performance to non-users with six months of experience. This suggests that generative AI has potential to bridge the skills gap among workers.

## Technology that a 4-year-old Can Use

Figure 2 shows the generative AI images created by my children aged 8 and 4.

Figure2 Generative AI images created by 8-year-olds and 4-year-olds.

"A monkey in a space suit trying to eat a banana in space"



"A bullet train Kagayaki made of Lego and Mt. Fuji"



Source: Created by the author using Adobe Firefly  
\*Due to restrictions on the commercial use of the image-generating AI used by my children, these images are generated by another image-generating AI to provide a closer representation of the actual work.

Although they cannot use computers, smartphones or type, they created these

images using voice prompts such as "a monkey in a space suit trying to eat a banana in space" and "a bullet train Kagayaki made of Lego and Mt. Fuji".

As a result, they produced beautiful pieces of art that they wouldn't have been able to produce without generative AI. This aligns with the aforementioned Stanford research. It also demonstrates the potential for even young children, who lack traditional computer and typing skills, to create artwork under parental supervision.

Unlike traditional imaging software, which requires a high level of technical expertise, the ease of use of generative AI enables individuals to unleash their creativity without specialized knowledge.

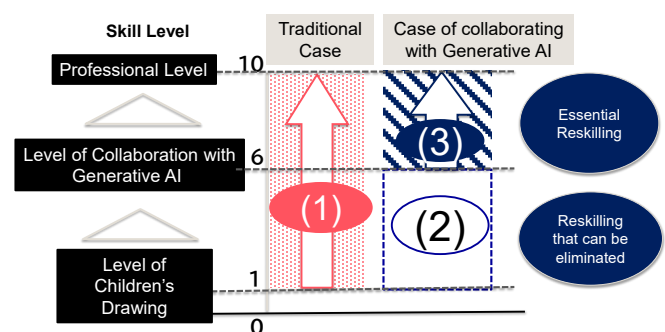
### Elevating Human Capabilities

In this regard, we can say that generative AI has the potential to elevate human capabilities (the "elevating effect") as depicted in Figure 3. To comprehend what future reskilling might look like with the advent of generative AI, let's compare the traditional case with the case of collaborating with AI using the examples of my children's images mentioned earlier.

In the traditional case, if my children with a "level of children's drawing (level1)" aimed to reach a "professional level (level 10)", they would conventionally have to undergo reskilling from level 1 to 10 (zone (1)). However, in the case of collaborating with the AI, they have already reached level 6 without extensive reskilling. Consequently, reskilling in zone (2) can now be almost eliminated, and the need for reskilling is limited to zone (3). Zone (3) then becomes the essential area of reskilling in the age of generative AI.

This also suggests that the barriers to entry into professions and tasks will be lowered. In the future, we can anticipate the widespread implementation of company-specific generative AI, incorporating in-house knowledge and additional learning. New employees will be able to efficiently catch up with the skills of existing employees through the use of generative AI. In addition, barriers to entrepreneurship and new business entry can be reduced.

Figure 3 Areas of Reskilling Transformed by Generative AI



\*The vertical axis represents the skill level when the professional level is set to 10.

(Source) Dai-ichi Life Research Institute

### Transforming Reskilling Landscape

The "elevating effect" of generative AI will significantly change reskilling landscape. While basic IT skills will remain essential, the focus will shift to developing "advanced prompting skills" that emphasize effective communication and solution guidance when interacting with generative AI.

In the case of my children's drawings, possessing extensive knowledge and familiarity with art will enable one to provide precise prompts and produce more creative drawings. In business implementation, acquiring "advanced prompting skills" based on industry-

specific knowledge and experience will lead to higher value-added solutions. Therefore, the acquisition of these "advanced prompting skills", underpinned by deep expertise and experience, will be critical in corporate reskilling initiatives.

### **Unleashing the Potential of Seniors and Foreigners**

This AI's "elevating effect" could unleash the potential of seniors who lack IT skills and foreigners who can't work for Japanese companies because of language barriers. For instance, seniors with industry knowledge and experience but limited computer skills could make significant contributions by using "advanced prompting skills". Thus, effectively promoting reskilling through generative AI offers a strong potential solution to Japan's structural labor shortage issue.

Original in Japanese:

<https://www.dlri.co.jp/report/dlri/290295.html>

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