

Foreword



Author: *Fujio Toriumi**

** Professor, the University of Tokyo*

The Greatest Risk of AI is Ignoring it

The overall image of artificial intelligence technologies is difficult to grasp, and partly because the technologies considered central to AI change over time. Ten years ago, deep learning itself was often regarded as synonymous with AI, but today the term is more commonly associated with generative AI tools such as ChatGPT. In reality, however, AI includes a much broader range of technologies. It can be applied to prediction, recognition/estimation, generation, analysis, design, and collaboration. AI systems that process large volumes of data are particularly well suited to industrial applications. For example, demand forecasting based on large volumes of data and product design using deep learning may have more use cases than generative AI. Image recognition and related technologies are also in high demand at manufacturing sites.

Survey results indicate that the use of artificial intelligence technologies is lagging in Japan. This may reflect caution about the risks of using new technologies. However, technological innovation is now advancing so rapidly that failing to adopt new technologies can itself become a significant risk.

Naturally, introducing new technologies may seem to require enormous costs. Yet universities, as an example, are constantly researching and developing the latest technologies and seeking applications for them. Companies that introduce AI in collaboration with university laboratories may therefore gain access to advanced expertise while creating mutually beneficial partnerships between industry and academia.