Past, Present, and Future of AI Economic Analysis

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Summary

- Artificial intelligence (AI) has been used in various situations in business and everyday life, and in the past decade, there has been an increasing number of attempts to apply it to economic analysis.

- In this report, we review past applications of AI, and reexamine how it can be used in economic analysis.

- Conventional econometric methods are sufficient if you want to identify causal relationships and mechanisms among variables using data of a few thousand in size. However, the flexibility of being able to use new types of big data such as text, location data, and images, makes AI methods such as machine learning suitable. There have been some useful applications for economic analysis in line with these objectives.

- In addition, research is being conducted to overcome the challenges faced by machine learning and econometrics, and they will gradually come closer to each other by referring to each other's methods.

- Unlike official statistics, it takes considerable time to preprocess the data that can be used for analysis, and data tends to be expensive when conducting economic analysis. In order to make use of AI and new data for economic analyses, not only human resource development but also the organization itself needs to be transformed into a Data-Oriented one.

- The united efforts of organizations will be the key to enjoying AI's innovativeness.

Attention
This report is a summary translation. The official document is only in Japanese, included in the DIR Research Quarterly Review (Vol.47).