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## **EMPIRICAL STUDY OF CHANGES IN THE NETWORK STRUCTURE OF ORGANISATIONAL COOPERATION ON ARTIFICIAL INTELLIGENCE**

### **Abstract:**

The aim of this study is to empirically clarify the changes in the network structure of organisational cooperation on artificial intelligence. The research questions are: 1) what kind of network structure of organisational cooperation is expanding, and 2) whether the so-called big techs are becoming more oligopolistic or decentralised as the central organisation of the network. As a research method, data for Japan as a whole for the past five-plus years, when the business use of machine learning technology has been expanding, were analysed using the method of social network analysis. The results of the analysis of each network indicator and the case studies show that the more open and mediated the network structure, the greater the scale of collaboration. The results also showed a tendency towards decentralisation, although big tech accounted for a large proportion of the total.

### **Keywords:**

organisational cooperation, social network analysis, artificial intelligence

**JEL Classification:** M15, M21, O32