CNAO's Experiences on Application of AI Technology in Auditing against Corruption

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National Audit Office of China October 2023 • Audit institutions shows unique professional advantages and playing an irreplaceable role in anti-corruption.

• The rapid development of the economy and society has increased the burden on auditing.

In general, auditing becomes more challenging.

To effectively resolve the problems:

- Countries are actively promoting the digital transformation of auditing and striving to explore practical paths for reforming the traditional auditing methodology and enhancing efficiency.
- CNAO has set up a data analysis team and tried to apply AI technology to analyze structured and unstructured data.

01

CNAO's Practices

PART 01

Data

Strengthening the top design to standardize data acquisition.

Algorithm

Innovating techniques and algorithms to identify suspicious clues of corruption.

Computing Power

China's Golden Audit Project offers strong support.

I. Data Support

Legal Authorization

Data Standardization



Machine Learning

By imitating human learning behavior to acquire new knowledge or skills, machine learning makes predictions and decisions upon new data.



Deep Learning

It can reorganize the existing knowledge structure after multiple iterations, thereby quickly identify abnormal transactions in massive data.



Graph Database

It can store and query complex data, quickly process massive audit data, and help auditors better understand and analyze complex data relations.



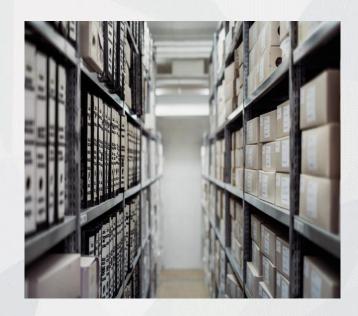
Geographic Information

Collecting, processing and visualizing geographic information helps auditors understand the geographical distribution of audit objects and quickly identify abnormal situations.



Natural Language Processing

It can be widely used for machine translation, opinion extraction, and voice recognition, to quickly process numerous vouchers and documents.



III. Computational Support

• The first phase of Golden Audit Project commenced in 2002.

• The second phase of Golden Audit Project commenced in 2008.

• The third phase of Golden Audit Project has been completed.



Work for the Next Step

PART 02

R&D

Deepen technology R&D and application

Training

Carry out professional training

Risk Control

Strengthen technological risk prevention

I. Promote Technology R&D and Application

• Make technologies more accessible to auditors.

• Coordinate national audit resources through guiding CPA firms and internal auditors to apply AI technologies.

II. Carry Out Professional Training

• Optimize the internal training system, offer high-quality training courses at different levels to establish a digital audit team.

• Collaborate with the academics and research institutions to explore the application of AI technologies.

III. Strengthen Technological Risk Prevention

- Intensify research on data security protection techniques, to enable early detection.
- Strengthen risk assessment and monitoring to identify and address issues arising from the use of AI technology.

Thank You!