Recent Developments in Information Assistance Systems in IP Practice CHINESE TAIPEI Feb. 27, 2024

1 Patent Document **Assistance and Error Detection System**

Assist applicants in reducing textual errors in their applications

Reduce the workload on examiners, improving the quality of examination...

In 2022, Automated Patent Examination System for Utility Models In 2023, Patent Document Assistance and Error Detection Patents rogrammed by Detection Patents rogrammed by TIPO's Patent Available on September 28, 2023 Im https://www.youtube.com/watch?v=-04NsJgdL@miner







1. Patent Document Assistance and ErrorDetection SystemSystemOperation Block Diagram



1. Patent Document Assistance and ErrorDetection SystemSystemInterface

Inconsistent, display error messages

Component Names, Signs, and Brief Descriptions in Diagrams



Content of Patent Documents, Abstract, Technical Field, Prior Art, Description of Utility models, Implementation Methods, Claims



2. IPC Automatic Classification

In 2017, TIPO **launched** the IPC Automatic Classification POC (proof of concept) In 2020, it was continuously **Updated** and integrated into the existing examination processes (Production Pilot Run)





2. IPC Automatic Classification



In 2022, it **automatically** assigns applications to the examiner of the classification based on the IPC automatic classification prediction results

2. IPC Automatic Classification

Provides 3 suggestions for each application

In 2023, TIPO developed a **NEW** automatic classification module using the BERT algorithm

The subclass **accuracy** stands at approximately 87%, while the accuracy for the top 10 main groups is around 85%. The overall accuracy is measured at 64.8%

In 2024, TIPO plans to **integrate** this module into the existing examination process

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In 2020, TIPO **launched** the Trademark Image Search POC (proof of concept)

In 2022, the **Beta** version of the construction was successfully



Further Task: Continuous Learning



Implementation: Evaluator's feedback for Further Training



Images marked with the "-" feedback will have their rank <u>moved</u> <u>backward</u> after re-training AI model

Images marked with the "+" feedback will have their rank <u>moved</u> <u>forward</u> after re-training AI model





Local feature index model

In 2023, TIPO integrated the AI identification **local feature index** model Within the **first 1,000** retrievals, the detection rate is approximately 64% Within the **first 5,000** retrievals, the detection rate is approximately 72%



Al module without local feature identification

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Al module with local feature identification

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