Artificial Examiner: The Expanding Use of AI and ML Software at Intellectual Property Offices (IPOs)

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On February 8th, 2018 the World Intellectual Property Office (WIPO) released a summary[1] of the replies given by national and regional IPOs about the use of Artificial Intelligence (AI) and Machine Learning (ML) software in the administration at the IPO, and the results are a very interesting perspective on the adoption of various legal tech initiatives in government and administrative environments.

The questions, as asked, included:

a. Any relevant business solutions making use of AI and big data (such as classification of application files, image search of trademarks, machine translation, etc.);
b. A description of specific AI systems in use (such as the name of a commercially available system or an in-house development system, a description of functions, data used to train the AI system, etc.); and
c. Experience and other useful information to share with other IPOs (reliability, human interface, any impact on the work, lessons learned, etc.).

35 IPOs responded, and of those 17 noted that they had begun using AI technology for at least one component of the management of their practice.

In its response, the Canadian Intellectual Property Office (CIPO) described several ongoing projects including the use of IBM Watson to engage with clients through social media, the possibility of using blockchain based technologies to streamline the registration of Copyrights and the feasibility of machine learning to answer IP based questions on policy.

The United States Patent and Trademark Office (USPTO) is using ML in several areas including determinations of patentability, and analysis of patent prosecution histories. A tool named Sigma is in development where AI and ML are used to search an entire patent document against the body of granted patents and patent publications.

The European Union IPO uses an AI enabled image search system called TMvision[2], which can be used by Examiners and the public as a visual search engine. Both the EUIPO and the EU Patent Office use ML based machine translation of documents.

The report pointed to numerous different use cases for AI in the administration of IP, including automatic patent classification, automatic recommendation of classes for goods and services in Trademark applications, prior art searching and analytics, Trademark image searching, Trademark examination as a whole, helpdesk services for Applicants, general administrative tasks for IP management, machine translation of foreign language documents, and data analysis for economic research.


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