

SCP/33 item 7

Statement by DE on the Use of Artificial Intelligence in patent examination practice at the German Patent and Trademark Office (DPMA)

Thank you Chair,

We appreciate the opportunity to share our experiences and the further developments regarding the use of AI for the examination of patent applications at the German Patent and Trade Mark Office (DPMA).

At the DPMA, two AI applications developed in cooperation with an external partner have been used in patent examination practice since 2019, namely

- an electronic classifier for automated patent classification and
- a cognitive search for prior art search.

Having already reported on the details of these two applications at the 31. Session of the SCP, we would like to give just a brief update on them.

- a. Since our report at the 31st session, the electronic classifier has been further trained with DE patent documents as well as EP patent documents published in German or English language since 2010. The accuracy of the automated suggestions at subclass level currently allows a fully automated initial distribution of new patent applications in the electronic workflow of the DPMA, to the patent division responsible for the respective subject area. The subsequent classification at subgroup level is still carried out by the patent examiners in charge, but is assisted by an interactive classification tool.
- b. With respect to the AI-based cognitive search, which is available in German and English, our recent developments also focused on further training of the underlying models and further improvement of the search results' relevance. For this purpose, all published DE patent documents on record were used for training the German model, and all English-language documents published since the year 2000 by the USPTO, EPO and WIPO were used for training the English model.

In addition to improving these two AI applications, the DPMA has started to use AI for machine translation of Asian patent literature.

To expand its searchable full-text database, in March 2021, the DPMA has started using the AI-based tool "WIPO Translate" provided by WIPO to translate new incoming patent documents as well as - step by step - existing patent documents in our database from Japanese, Chinese or Korean into English.

With their incorporation into the DPMA's database, the full functionality of our in-house search systems, that is, Boolean search and AI-based cognitive search, will be applicable also to these full texts of Asian patent documents.

In the future, regular repetitions of the translations are planned to update the full text databases and thus reflect further improvements of AI translation performance. We thank WIPO for providing such an excellent tool and for making it available for member states.

The DPMA looks forward to the further exchange of information and experience on this important, promising and challenging topic.

Thank you.