

Disrupting the Patent Translation Process with AI to Reduce Prosecution Costs by 40%

Spend some time at any intellectual property (IP) industry event and it won't be long before you hear "AI" being talked about in one context or another. Artificial Intelligence (AI) has augmented many areas of patent attorneys' lives, including patent search, analysis, and drafting. That said, the most meaningful and consistent cost-reduction AI brings to the patent world is in translations.

It is well known among patent prosecution professionals that patent translation can be the most costly portion of a patent filing. Many countries require translation of the entire application into the country's national language in order for the patent to be considered. In an article on managing global patent costs, *WIPO Magazine* noted that the estimated cost of translating an English-language application into Chinese, Japanese, Korean, and Russian is between \$3,000 and \$5,000, approximately 75-80% of the total filing costs.

Traditional Model

Many patent professionals assume that patent translation costs are a necessary evil without recourse. Traditionally, in-house IP attorneys would ask their outside counsel to "nationalize" an existing patent in the other countries in which they sought patent protection. Managing outside counsel, in turn, reached out to respective local agents in each country. Those local agents then became responsible for the translation as part of their filing duties. Some local agents handled the translation in-house, while others outsourced to freelancers or language service companies, but no matter the solution, there was very little, if any, insight into the process or costs of the actual translation.

Disrupting Patent Translation: Technology-Based Model with Human QC

As language service providers have become more involved in the patent prosecution space, a new model has come to the fore. Rather than relying on a disparate set of in-country agents for translation, IP departments are increasingly counting on language service providers who specialize in patent translation. These providers combine the efforts of AI, previously completed translations, and human translators to eliminate redundancy and make the translation process more efficient, saving time and cost for patent filers.



The first step in a modern patent translation involves translation memory. AI software analyzes an application to determine if any segments of the application have been previously translated. If they have, those translations pre-populate into the framework of the yet-to-be translated application. Given that patent applications are often created from templates, the amount of overlapping text can be significant. The creation of these applicant-specific databases reduces costs and increases efficiency over time as more content is translated.

After translation memory is applied and any existing work product is reused, the old playbook would have called for an expert patent linguist to review the pre-populated content and translate the rest of the application. This step is now being replaced by AI-powered machine translation. While anyone that has used Google Translate can tell you that a machine-translated application will not produce a filing-ready translation, this does not mean the technology cannot play a valuable role in the process.

After machine translation, the output produced by AI is reviewed and enhanced by an expert patent linguist who previously would have handled the initial translation at a much higher cost. The combination of translation memory and AI technology augmenting expert human review is now the gold standard of producing quality patent translations. More importantly, it reduces the cost of patent translations by nearly half, and the total cost of filing a patent in a new jurisdiction by nearly 40%.

Conclusion

While we are still not close to the day when AI can fully replace the human role in the patent translation for prosecution process, AI continues to become more significant to the workflow as the databases increase their throughput and engineers are able to fine tune the process. The real winners are patent filers, who now reap the cost savings provided by this advancing technology.

