Executive Summary

This white paper outlines patent searching as it relates to the intersection of AI and Life Sciences that discusses history, searching pitfalls, solutions and strategy.

The history of AI patents and patents that fall into the aforementioned intersection is reviewed with respect to filing trends across time and territory, showcasing the dominance of the US and how other territories compare, as well as filing peaks over the last 20 years and investigating some of the earliest references to AI, deep learning and machine learning. We also discuss these findings with respect to their consequence on patent searching, highlighting how the breadth and depth of terminology and volume of filings can have a significant effect.

Common and bespoke patent searching pitfalls are investigated and addressed as they pertain to AI and Life Sciences individually. Discussed pitfalls include: biological sequences; 'abstract' descriptions; broad claims; biological synonyms; searching for symbols and the rapid expansion of the AI and Life Sciences fields. We propose suitable solutions based on years of experience searching across both sectors for each problem, making reference to truncation, sequence databases, classifications, and broad search terms.

An insight into strategy for conducting patent searches in the intersection is proposed, offering a preview into the practice and a sample of recommended keywords and patent classifications. Emphasis is placed on keyword and patent classification usage, drawing attention on how to best utilise them to your advantage. Databases are briefly discussed, noting that readers should be aware of database limitations when searching.

The white paper concludes with a reflection on the findings, as well as noting the consequences when not proceeding with knowledge and caution in such complex industries. Attention is drawn to making certain that patent searching is carried out and is conducted correctly, emphasising the benefits of a professional search company and how to ensure you get the most beneficial outcomes.