

# Patent Searches Just Got Easier

**HIDEKI TAKEDA**  
**FRONTEO**

► **FRONTEO's new AI-based Patent Explorer reduces search time and expense.**

**P**atent analysis can be document- and-review intensive. For instance, if a company wants to invalidate another company's patent rights that are an impediment to the promotion of its own business, it must provide evidence that demonstrates its case. In doing so, it must search and identify publications that were publicly known prior to the application for such a patent from among the large volumes of patent publications. This conventional analysis is very labor intensive and requires expertise from the reviewers, making the research process very costly.

Patent Explorer is a next-generation patent

search system from FRONTEO. Leveraging FRONTEO's AI engine KIBIT, the system reduces the expense and effort involved in patent searches by analyzing large volumes of patent publication and targeting key documents in order to save time and money.

KIBIT AI extracts the features and concepts related to the contents of the description of the patent rights to be invalidated, and then assigns a score indicating the respective level of proof to each piece within the enormous quantities of patent publications. Patent Explorer ranks the patent publication by score and provides the results through an easy-to-review user interface.

In many cases, the evidence is contained within the top 1 percent, so a user can simply discover documents with a high level of proof by only reviewing a small volume of documents,

even when lacking specialist expertise. For example, in the case of a search of 3,000 patent publications, the appropriate evidence can be found by reviewing only a few dozen publications ranked at the highest levels.

Patent Explorer is therefore a powerful AI-based system that supports corporate patent strategies and has already been installed by 50 companies. The patent technology areas cover a wide range of industries, particularly large manufacturers for which patents are important, such as in the chemicals & materials, machinery, manufacturing and food & beverage sectors.

## **New Functions in Patent Explorer19**

FRONTEO and KIBIT have recently released the next-generation AI engine KIBIT G2 (Generation 2). KIBIT G2, which applies the outcomes of the

**The patent technology areas cover a wide range of industries, particularly large manufacturers for which patents are important.**



**Hideki Takeda** is chief technology officer and director of behavior informatics laboratories at FRONTEO, Inc. He has held committee memberships with the Japan Economic Research Institute and the Artificial Intelligence Technology Strategy Council.



latest machine learning-related R&D and know-how fostered through the discovery support business, now enables the user to analyze the natural language of patent publications with a higher degree of accuracy than conventional KIBIT. Patent Explorer has also been reborn as Patent Explorer19 with the installation of the new KIBIT G2, and this enhanced service has been introduced to Japan.

The new technology installed in KIBIT G2 has also enhanced the functions in Patent Explorer19. For example, KIBIT G2's parallel

distributed processing has drastically shortened the time needed to obtain ranking results. In addition, it enables highly precise analysis of patent publications that do not conform with the common application formats prescribed by the World Intellectual Property Organization. FRONTTEO has also delivered major improvements to usability through reforms of the user environment.

**Moving Forward with Patent Explorer19**  
FRONTTEO's Patent Explorer19 solution helps to substantially reduce the time and expense

involved in patent searches while enabling companies to better draft patent strategies. FRONTTEO has generated significant interest from large Japanese and foreign companies who attended the 2018 Patent Information Fair & Conference held in Japan from November 7-9. Consequently, we plan to expand sales not only in Japan but also in the U.S. and other global markets.

We are now offering an inexpensive, easy-to-introduce entry plan to a small number of user accounts. This is in response to our clients wanting to improve the efficiency of their

patent search operations by using AI. The plan keeps the cost to one-third of the usual monthly license fee, to cater to clients who first want to give it a try.

In addition, Patent Explorer19 technology will soon be applied beyond patent search to improve the efficiency of litigation document review, which is one of FRONTTEO's strengths.

Following the major trend toward open innovation and AI, we are confident that Patent Explorer19 will continue to expand and be implemented widely and globally. ■