

Status and Plans of AI Patent Search System at KIPO

PIFC | Oct 2024

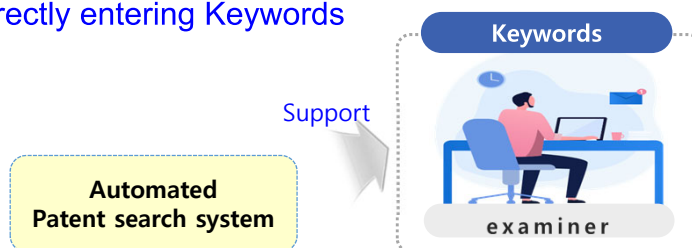


Status of AI Patent Search System

- KIPO currently has about 1,000 patent examiners
- To support them, KIPO operates Patent Search System : KOMPASS (Korean Multifunctional Patent Search System)
- The primary function is, of course, rapid and accurate Prior Art Searches

Status of AI Patent Search System

- Typically, for prior art searches, **examiners** identify the key elements of the invention, and then conduct searches **by directly entering Keywords**



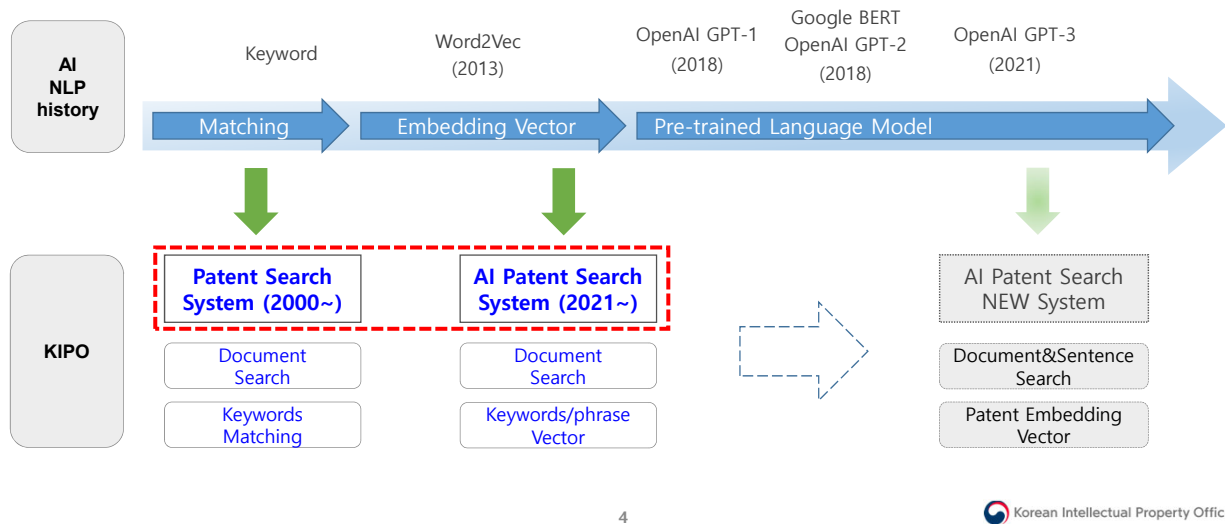
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Status of AI Patent Search System

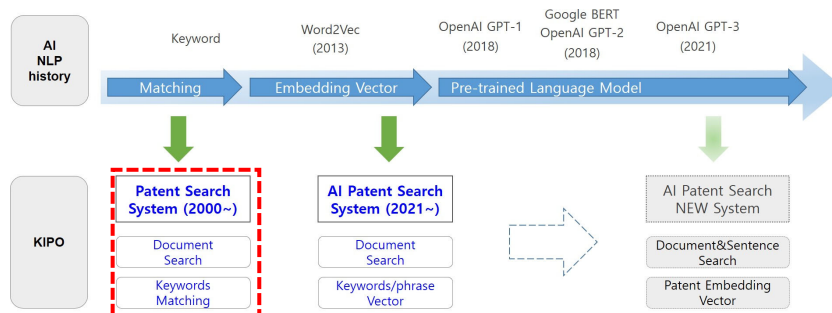
- Currently, KIPO supports examiner with **2 automated search systems**
- One is called '**Similar Patent Search**', and the other is '**AI Similar Patent Search**'
- **Both are AI-based**, and **automatically find 200 similar prior art documents**, by simply **entering the application number**

3

Status of AI Patent Search System

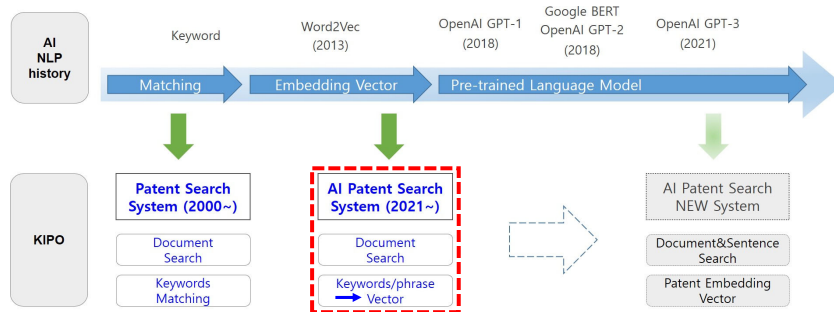


Status of AI Patent Search System



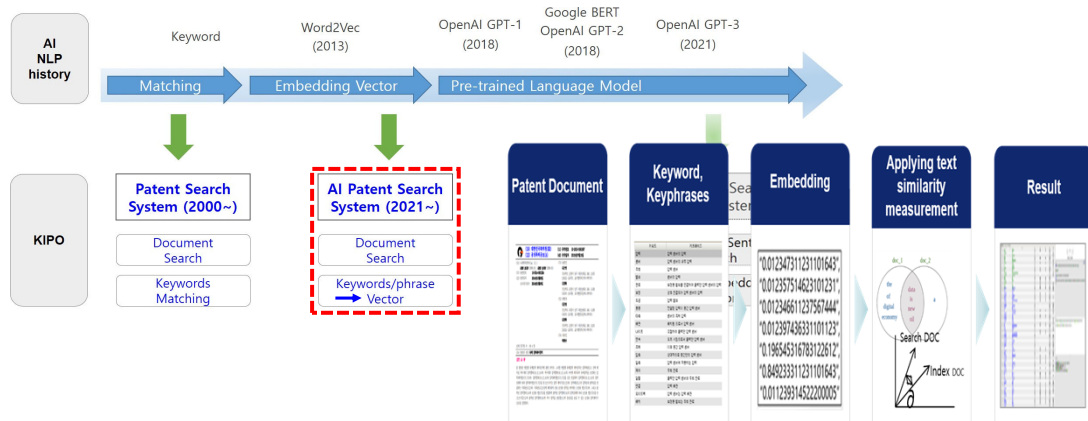
- Patent Search System(2000~) : Keyword-based Search

Status of AI Patent Search System

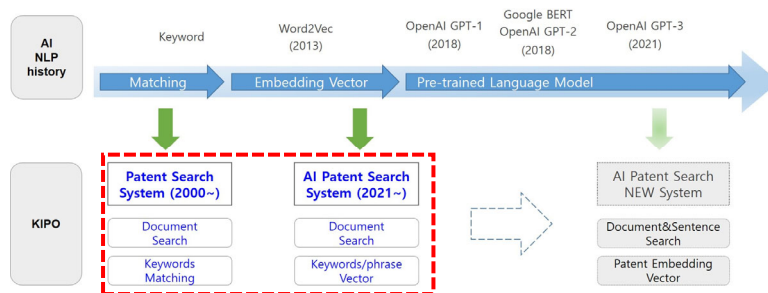


- AI Patent Search System(2021~) : Keyword/Phrase-based Search
- Embedding Vector → Similarity Measurement

Status of AI Patent Search System



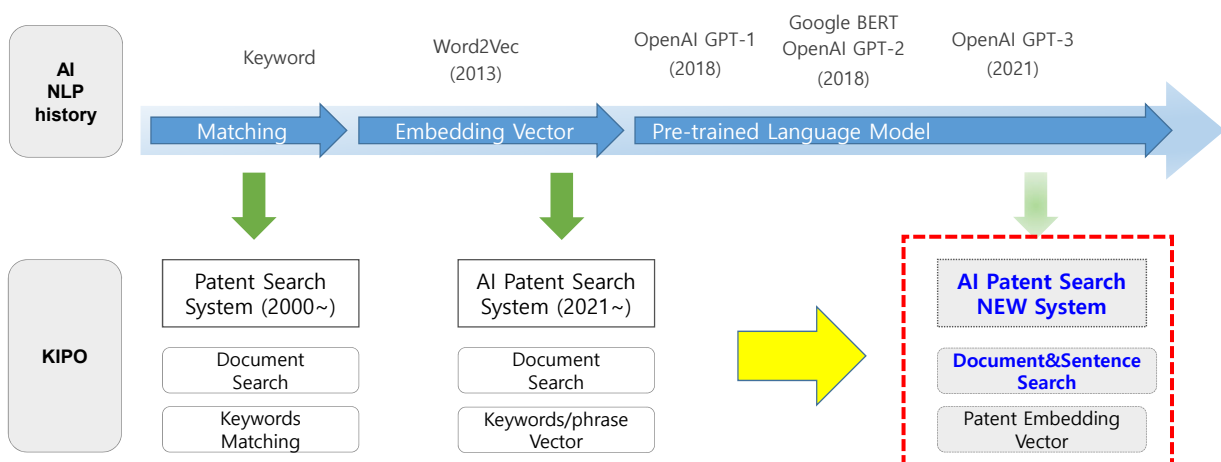
Status of AI Patent Search System



- Examiners widely use 2 systems, but their satisfaction is relatively not high
- The reason is that, although the system retrieves similar documents effectively, the number of results (around 200) is quite large. Above all, when drafting the notice, examiners need to compare references with each claim element

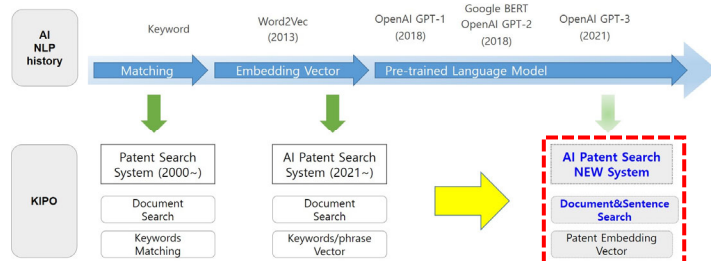
8

Plan of AI Patent Search System



9

Plan of AI Patent Search System

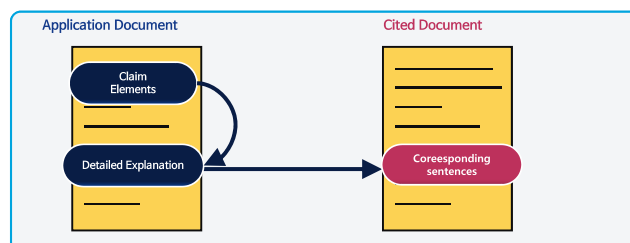


- Now, R&D is focusing on **finding sentences in prior art that closely match the claim elements**, beyond just identifying similar documents
- In other words, Prior art searches are being **expanded from the document level to the sentence level**

10

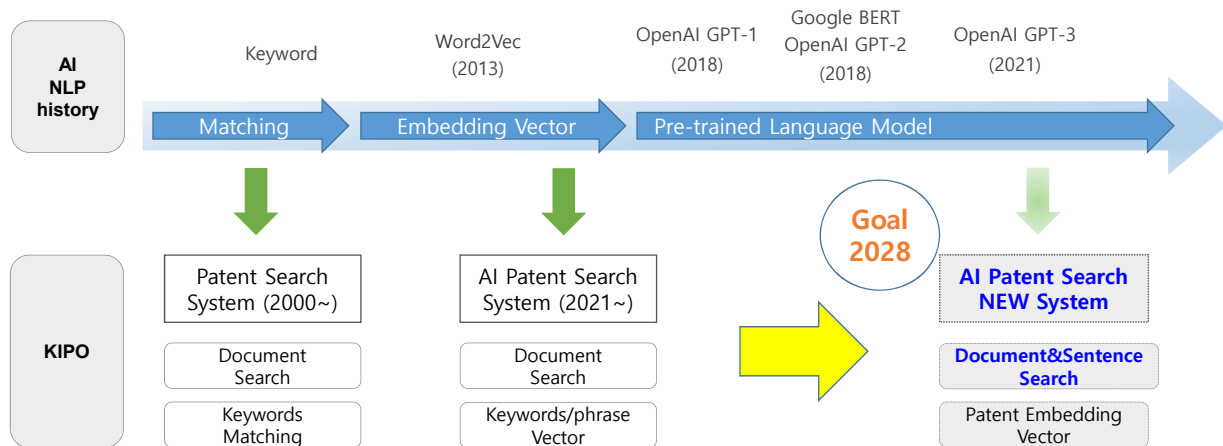
Plan of AI Patent Search System

- For new AI models,
KIPO is gathering the most crucial & essential **Training DATA**



11

Plan of AI Patent Search System



12

Thank you

13