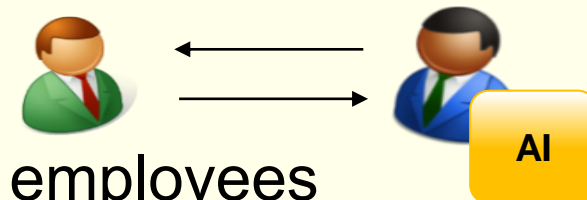


Outline of JPO's Activities for Using AI

May 2018
Japan Patent Office

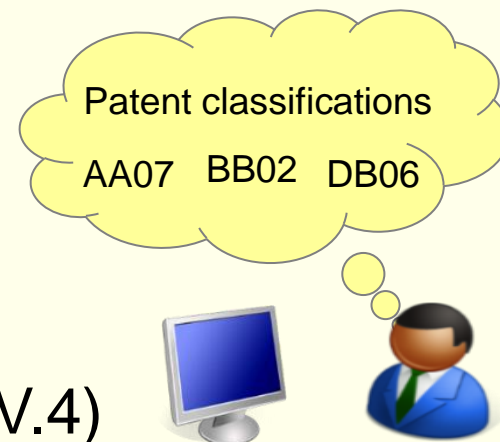
3 purposes of using AI

- (1) Developing more sophisticated and efficient business operations for administrating IP
- (2) Improvement of its services to users
- (3) Promoting work style reforms for JPO's employees

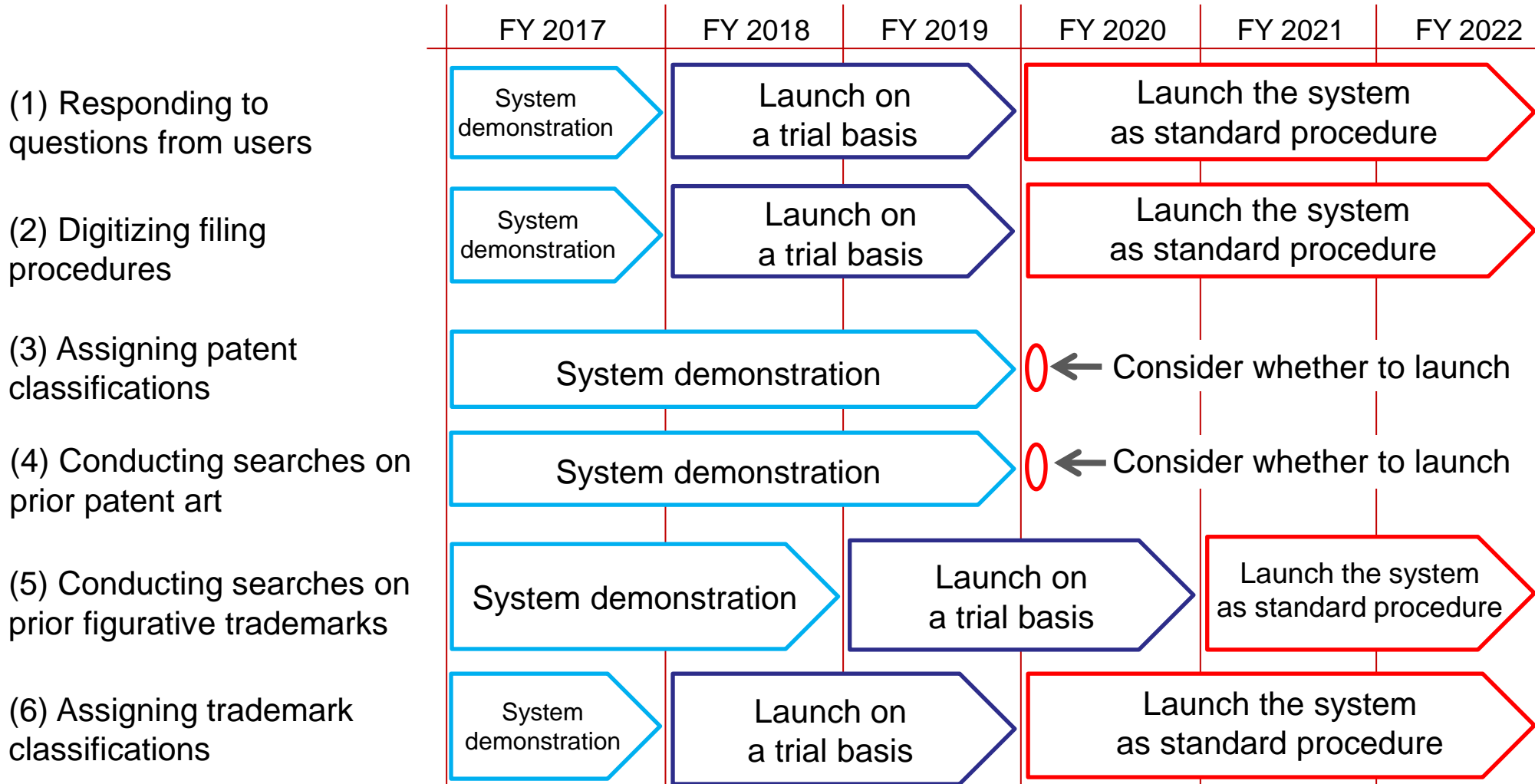


AI is aiming to support the following 6 activities:

- (1) Responding to questions from users (LV.3)
- (2) Digitizing filing procedures (LV.3)
- (3) Assigning patent classifications (LV.3-4)
- (4) Conducting searches on prior patent art (LV.4)
- (5) Conducting searches on prior figurative trademarks (LV.3)
- (6) Assigning trademark classifications to unclear designated goods and services (LV.3-4)



2. Schedule



The plan may be changed depending on the ongoing progress

3-1. Responding to questions from users

■ Target:

A) Support for responding to questions from users

- AI system will give possible answers to the JPO staff

B) Automatic answering function

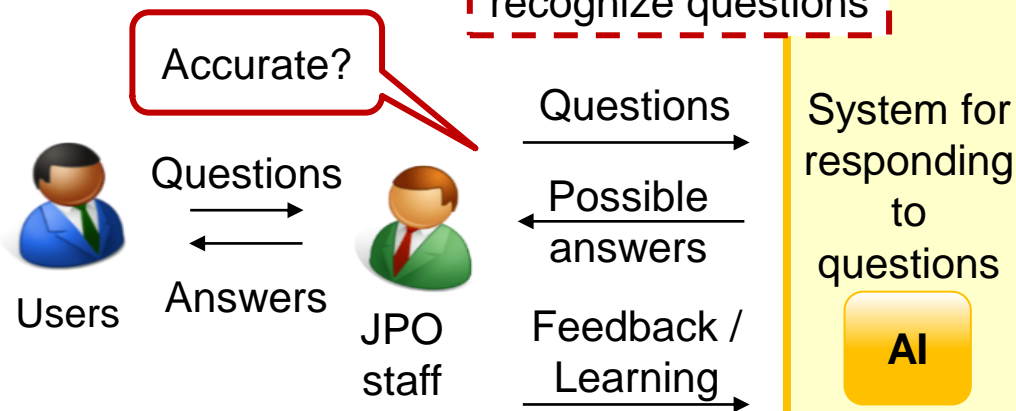
- AI system will answer questions submitted by e-mails, chat messages, or voice messages

■ Training data:

- 14,000 questions and answers by human.

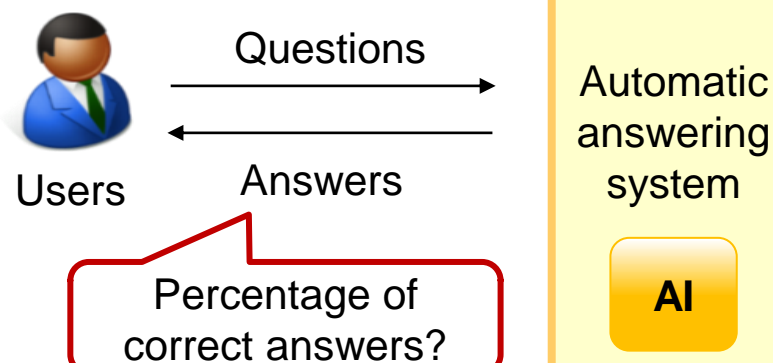
A) Support for responding to questions

AI will automatically recognize questions



B) Automatic answering function

AI will automatically recognize questions



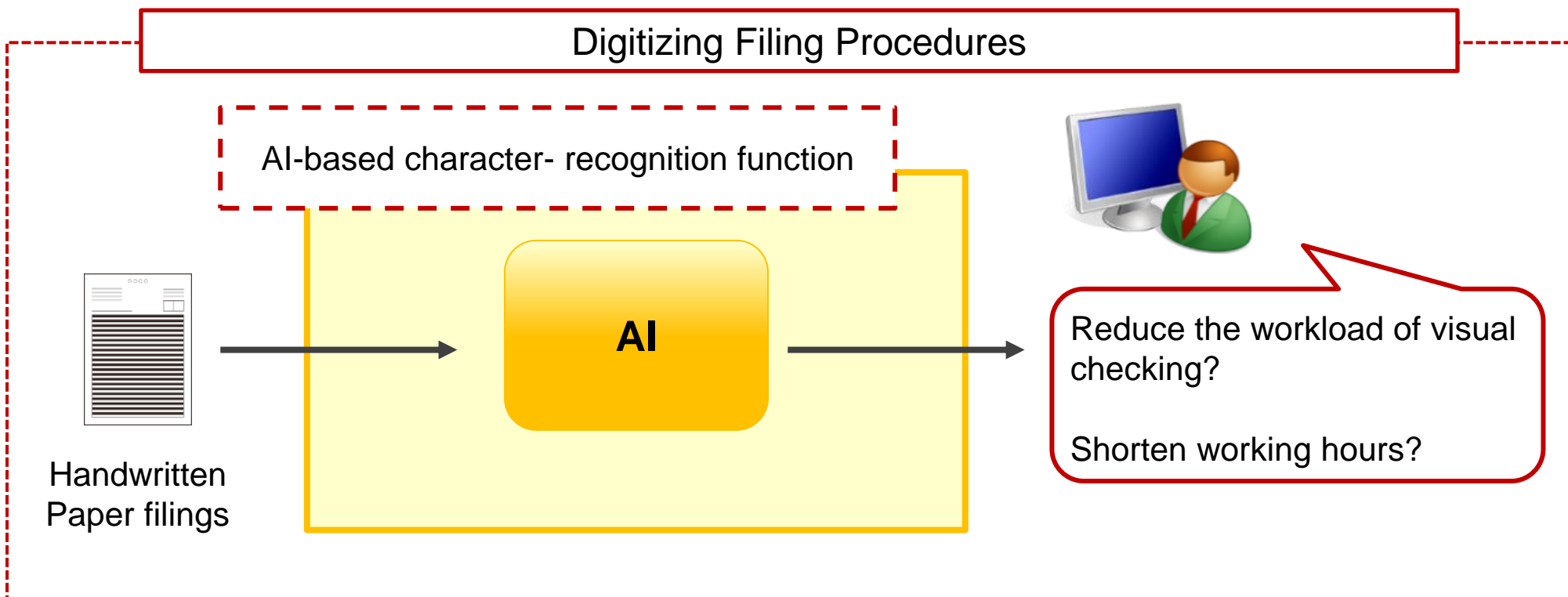
3-2. Digitizing Filing Procedures

■ Target:

- Function to convert already filed data into text data by using AI-based character-recognition

■ Training data:

- Data of images and texts of paper filings



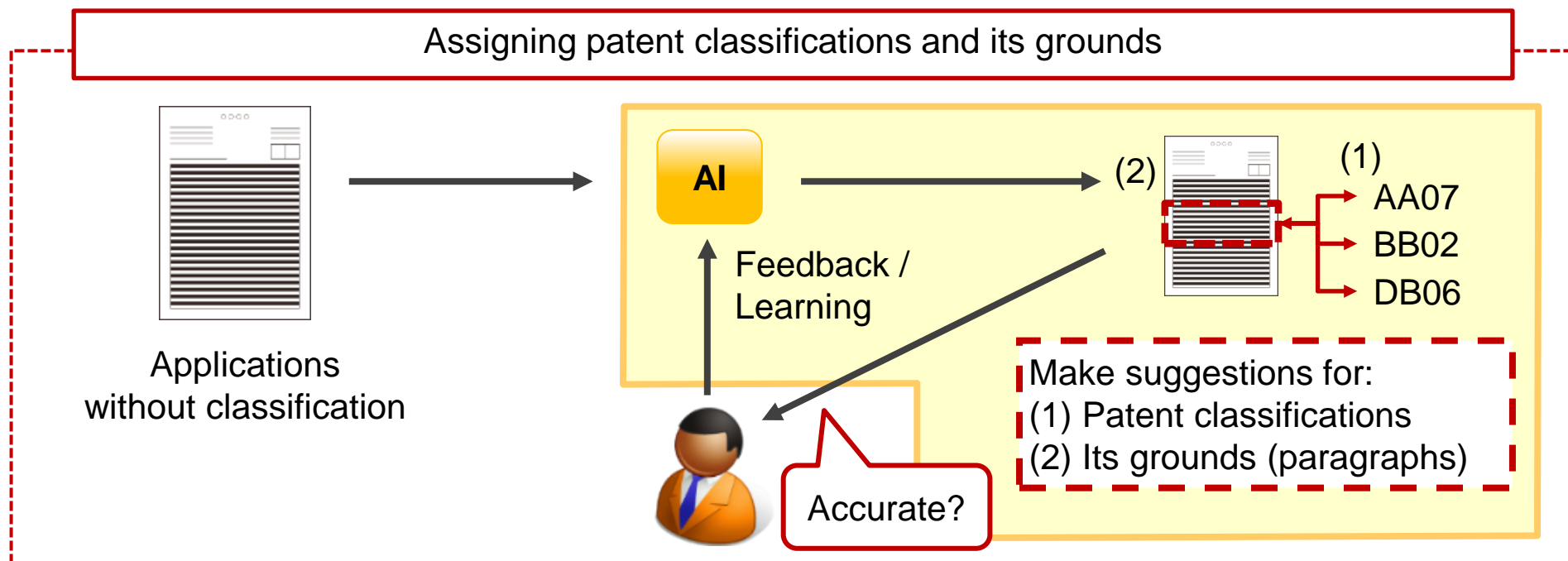
3-3. Assigning Patent Classifications

■ Target:

- Assigning patent classifications and its grounds based on AI making suggestions
 - F-terms for patent classifications
 - Paragraphs for its grounds (paragraphs)

■ Training data:

- Text data of filed documents (patent classifications were assigned)



3-4. Conducting Searches on Prior Patent Art

- Target:
 - Suggesting keywords and patent classifications in search queries
- Training data:
 - Text data from examined patent documents
 - Retrieval history of search queries used in examinations

Conducting Searches on prior patent art

Analyze information about applications and suggest keywords/patent classifications included in search queries


AI



Applications

Accurate?



Keywords to search	Patent classifications	Degree of priority
○○、○●	AA07, BB02	
○◆、■○	BB04, DB06	
○▲、▼○	CB04	

3-5. Conducting Searches on Prior Figurative Trademarks

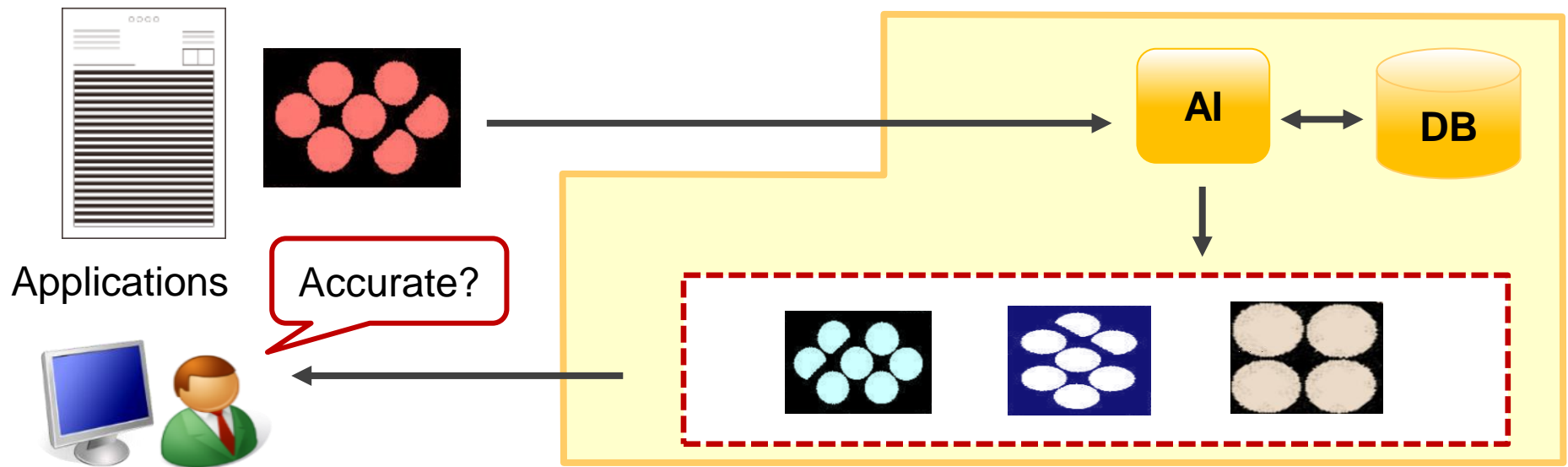
■ Target:

- Retrieving prior figurative trademarks to be identical with, or similar to, the claimed trademarks

■ Training data:

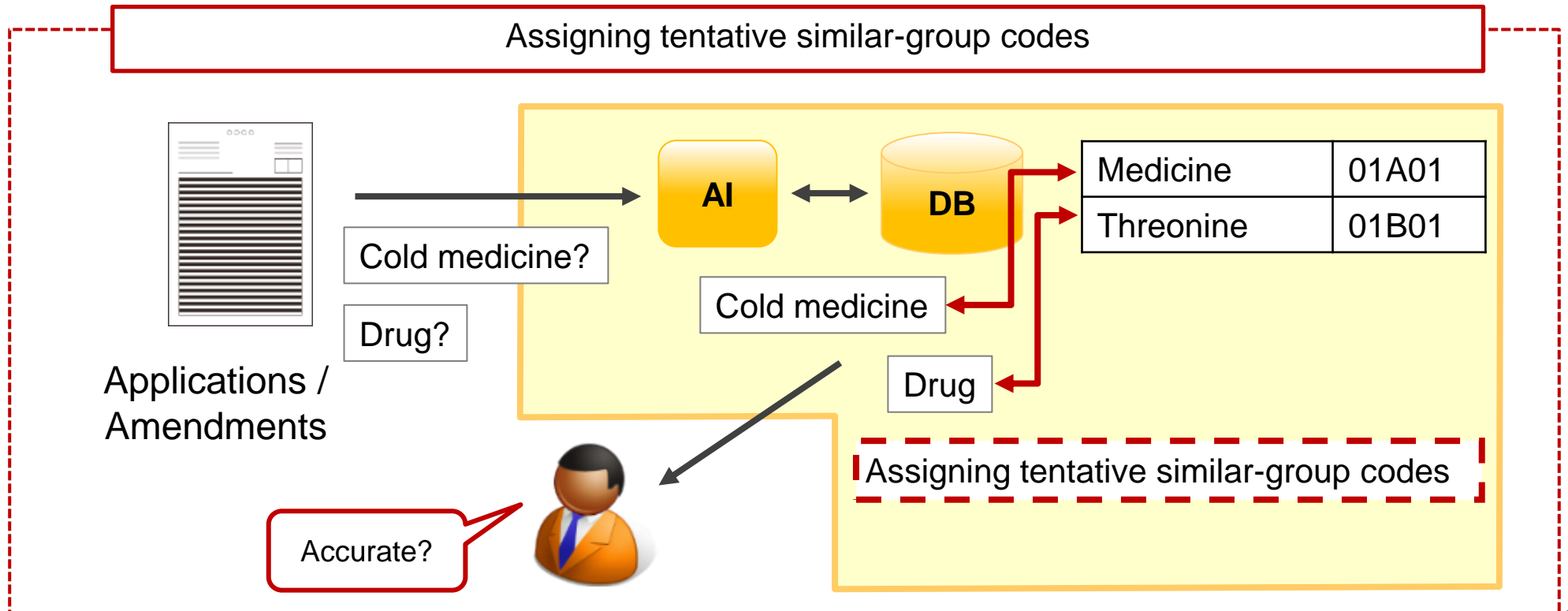
- Past results of searches on prior figurative trademarks, to enable AI to learn processes.

Retrieving prior figurative trademarks



3-6. Assigning trademark classification to unclear designated goods and services

- Target:
 - Assigning tentative similar-group codes to unclear designated goods and services in trademark applications
- Training data:
 - Reference materials such as the Examination Guidelines for Similar Goods and Services



Thank you