

Memorandum of the second round-table meeting for the NTCIR-8 Patent Mining Task

Edited by Hidetsugu Nanba

Time & Date:

13:00-15:10, June 24, 2009. (Wed.)

Place:

Room 2001 at National Institute of Informatics
(2-1-2 Hitotsubashi, Chiyoda-ku, Tokyo 101-8430 JAPAN)

Participants: (alphabetical order)

Atsushi Fujii (University of Tsukuba) (organizer)
Taiichi Hashimoto (Tokyo Institute of Technology) (organizer)
Makoto Iwayama (Hitachi, Ltd. / Tokyo Institute of Technology) (organizer)
Noriko Kando (National Institute of Informatics)
Hisao Mase (Hitachi, Ltd.)
Hidetsugu Nanba (Hiroshima City University) (organizer)
Risa Nishiyama (IBM)
Yusuke Sato (Hitachi, Ltd.)

Agenda:

Subtask 1 "Research Papers Classification"

[Comment 1](slide 15) Evaluation

- Though several methods for hierarchical classification evaluation were proposed, it seems better to evaluate at the main group or subclass levels in addition to the evaluation at the sub group level.

[Comment 2] The imbalance of the number of patents for each category (IPC)

- The k-NN-based method tends to classify categories, in which there are a large number of patents. Which system is better?
 - (System 1) Overall MAP score is high, but MAP scores for each topic is much different.
 - (System 2) Overall MAP score is not as high as the system 1, but MAP scores for each topic is not so different (stability for topics).

How about evaluating systems for each size (the number of patents) of categories?

[Comment 3]

- Can answer / Cannot answer is also another important viewpoint for evaluation.

Each system need not reply IPC codes for all topics (research papers). Reply for only reliable answers. But in this case, evaluation by coverage (how many topics did the system reply?) is required.

[Comment 4]

- To evaluate each system in terms of Recall and Precision, each participant group is obliged to state the reliabilities for each IPC code.

Utility-based evaluation

Evaluation of OCR

[Comment 5] (slide 14)

- Using author's names and author's affiliations seem to be effective for this task. However, this task requires other techniques, such as name identification, which seems to be a hard task. How about conducting the "TITLE+ABSTRACT" task as a mandatory run and others, such as "TITLE+AUTHORS", as optional runs?

[Comment 6] (slides 11-13)

- Preparing for many topics is desirable, but it seems difficult to prepare for a reliable dataset. How about using CiNii database? CiNii API is available.

Subtask 2 "Technical Trend Map Creation"

[Comment 7]

- Which is better "Technical Trend Map" or "Technological Trend Map" as the name of the subtask 2?

[Comment 8]

- The tag definition should be made clear.

[Comment 9]

- In which items in patents, should the tags be assigned?
 - summary
 - effect of the invention
 - prior art