

THESIS PROPOSAL - 30 CREDITS

# Intelligent and Adaptive Patent Portfolio 'Watchdog'

# **Background**

Keeping track of published patents is essential for innovative companies: it helps protect intellectual property and can inform research and development activities. World-wide, roughly 100,000 new patents are published every week. This makes searching for relevant patents an extremely challenging task: it is time-consuming and can be costly if one misses a critical patent. Companies sometimes rely on external patent search specialists, but in many cases these lack domain knowledge of the company's specific technological field. Moreover, patent search and assessment is not a one-time exercise – most successful technology companies employ a periodical or continuous process in which searching is either done on a regular basis, or some automatic monitoring is put in place to signal when new patents are published within the field (search alerts). In any case, a well-chosen search query is essential for capturing as many relevant documents as possible.

# **Project description**

The goal of this project is to develop an adaptive 'watchdog' service that helps the user maintain a portfolio of relevant patents. The service would regularly scan through newly published patents, extract the most relevant ones, and present a ranked list of them to the portfolio owner for evaluation. Any action taken by the owner (save a suggested patent to the portfolio, delete a patent, re-rank the list) would be tracked by the system and used for self-refinement over time.

#### Customer

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#### Contact

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### Student profile

Knowledge about natural language processing (via courses such as TDDE09) and/or text mining (via courses such as TDDE16, 732A92).