The Workshop for Big Data Analytics in Patents

Abstract

After Google's AlphaGo recently defeated the world's top-ranked human players at Go, artificial intelligence based on big data attracted worldwide attention again. Patent documents encompass rich technological, commercial, and legal data resource, which can be widely used in research and development, technology management and business strategy, and governable policy-making. In terms of the 4V characteristics of big data, i.e., high volume, high velocity, high variety, and high veracity, advanced approaches of the visualization, prescriptive analytics, the valuation, and the predication are definitely indispensable to patent data mining. Big data analytics in patents may offer crucial insights in various real-world scenarios, e.g. patent valuation and financing, damage calculation, technology transfer and commercialization, and technology foresight.

This workshop for big data analytics in patents mainly consists of two parts. The first part aims to introduce the analysis system for patent value by focusing on the following four key questions: why patent value is needed to be analyzed; what the analysis system for patent value exactly is; how to use the analysis system during patent management and patent commercialization; and what are challenging the analysis system for patent value. The second part of the workshop is about quantitative analysis of patents based on big data mining, which includes four typical research cases in aspects of citation analysis, pledge financing, university licensing, and innovation location, respectively. This part provides an approach of identifying the evolving process of a particular technology field and a framework for defining business problems and delivering solutions through transforming data into meaningful insights.