The important role of natural language (NL) in requirements engineering (RE) has long been recognized; Abbott and Moorhead, in a paper published in 1981 and intended to provide an overview of techniques for expressing requirements and specifications, stated that "the best language for requirements is natural language". While it is difficult to prove that natural language is indeed the best choice, empirical evidence over the years has shown that, at least in industrial practice, natural language is the most common notation for expressing requirements. In 151 software companies in the early 2000s, Mich et al. In an online survey conducted in 151 software companies in the early 2000s, they concluded that in 95% of cases requirements documents were expressed in some form of NL. This dominance of NLs was confirmed in a recent survey of 250 practitioners by Kassab et al. In this survey, the majority of respondents (61%) indicated that NLs are often used to define and specify software and system requirements in their companies. Since the early 1980s, inspired by the close relationship between NL and requirements, researchers have been using natural language processing (NLP) to process requirements texts (NLP) tools and methods have been developed. Natural language processing tools and methods for processing requirements texts have been developed by researchers for some time. However, for nearly three decades, this research was hampered by inadequate NLP techniques. At that time, they were not working well enough to support applications outside NLP research; since the late 2000s, the situation has changed significantly. In particular, the wide availability of NLP tools and resources has enabled researchers to work on a wide range of NLP support tools and methods for RE tasks; NLP research for RE (or NLP4RE for short) then became an active and serious area of research and attracted a wider range of RE researchers from the wider RE community. Today NLP4RE research is flourishing and a special workshop called NLP4RE is organized every year. There is now great potential to develop effective NLP4RE tools to help RE in real world applications: According to NaPiRE survey data, only 16% of companies use automation technology for requirements analysis. In the long history of NLP4RE research, many researchers have made groundbreaking breakthroughs in advancing knowledge in this field.

Summarized by © lakhasly.com