

A Survey of Response Generation of Dialogue Systems

Authors : Yifan Fan, Xudong Luo, Pingping Lin

Abstract : An essential task in the field of artificial intelligence is to allow computers to interact with people through natural language. Therefore, researches such as virtual assistants and dialogue systems have received widespread attention from industry and academia. The response generation plays a crucial role in dialogue systems, so to push forward the research on this topic, this paper surveys various methods for response generation. We sort out these methods into three categories. First one includes finite state machine methods, framework methods, and instance methods. The second contains full-text indexing methods, ontology methods, vast knowledge base method, and some other methods. The third covers retrieval methods and generative methods. We also discuss some hybrid methods based knowledge and deep learning. We compare their disadvantages and advantages and point out in which ways these studies can be improved further. Our discussion covers some studies published in leading conferences such as IJCAI and AAAI in recent years.

Keywords : deep learning, generative, knowledge, response generation, retrieval

Conference Title : ICDAR 2020 : International Conference on Document Analysis and Recognition

Conference Location : Jerusalem, Israel

Conference Dates : November 26-27, 2020