

# Summarization Application Testing

File: Artificial\_Intelligence\_in\_the\_21st\_Century.pdf

Page Count: 19

Model: Trained on ten documents (not including itself)

Keywords: number, AI (Top two words occurring in the document)

Control: Abstract from the paper

**ABSTRACT** The field of artificial intelligence (AI) has shown an upward trend of growth in the 21st century (from 2000 to 2015). The evolution in AI has advanced the development of human society in our own time, with dramatic revolutions shaped by both theories and techniques. However, the multidisciplinary and fast-growing features make AI a field in which it is difficult to be well understood. In this paper, we study the evolution of AI at the beginning of the 21st century using publication metadata extracted from 9 top-tier journals and 12 top-tier conferences of this discipline. We find that the area is in the sustainable development and its impact continues to grow. From the perspective of reference behavior, the decrease in self-references indicates that the AI is becoming more and more open-minded. The influential papers/researchers/institutions we identified outline landmarks in the development of this field. Last but not least, we explore the inner structure in terms of topics' evolution over time. We have quantified the temporal trends at the topic level and discovered the inner connection among these topics. These findings provide deep insights into the current scientific innovations, as well as shedding light on funding policies.

Occurrences of keywords: 6

Summary using weight system only:

(Summary too long, store as ai21C\_weightOnlySummary.txt)

Occurrences of keywords: 115

Summary using weights and word distances:

Artificial Intelligence in the 21st Century:  
Similarly, the average number of papers per author  $|P|/|peP|$  and the citations per paper can be calculated as  $(cid:80)(|cip|$  represents the total number of citations of the. 1) MEASURING RESEARCH OUTPUTS THROUGH METRICSThe average number of authors per paper is computed as  $(cid:80)$ , where  $|P|$  is the total number of papers in the. It can be computed as  $(cid:80)$ , where  $|R|$  is the total number of references of the journals/conferences and  $|arr|$  is the number of author self-references. TABLE 4 lists the top 30 researchers who have the highest average number of citations per paper as well as their total number of publications published in top-tier journals and conferences in our dataset. TABLE 1 and TABLE 2 list the journals/conferences and their basic statistics including the total number of papers, the total citations of these papers, the total number of unique authors, the average number of authors per paper, the average number of published papers per author, and the average number of citations per paper. The sharp growth of citations may be fuelled by two aspects: the increasing number of references per paper and the increasing number of publications. IDENTIFYING INFLUENTIAL PAPERS/RESEARCHERS/INSTITUTIONS To quantify papers'/researchers'/institutions' importance in the development of this era, we use the total number of citations to quantify the important entities of AI in the 21st Century. number of publications, and the average number of citations per paper. Note that the number of researchers represents the total number of authors who have published papers in the top journals/conferences, and the total number of publications means the number of publications these researchers have published in the top journals/conferences. 2(a) we can see that the number of AI papers has been increasing roughly linearly in the 21st Century.

Occurrences of Keywords: 25