

"Recent Advances in Network Big Data Analysis"

The Theme: According to Eli Siegel's estimate, human beings are now increasing the data of everything. Text has become the data, the physical state equivalent of mechanical data, whereas people have become the location of the data. Even information exchanged between people has become data. Big data itself is a relatively abstract concept; people inevitably take the words too literally. Big data using a literal translation can be aptly characterized as being any data of huge size. Even when considering only data quantity, nonprofessionals are unable to clearly distinguish between current big data concepts such as Very Large Data and Massive Data and how these surpass the concepts of massive data used in the past. So far, people do not yet have a unified concept of big data for the entire industry. In popular parlance, people often summarize the characteristics of big data into the term "4V," which involves four main points. First, it concerns the huge amount of data (Volume). Traditional technology has been unable to adequately address the huge amount of data now being generated. For example, a medium-sized city generates billions of bytes of smart meter data every month. Second is more structured data (Variety). Not only do we now have traditional structured data but also unstructured and semi-structured data. Third is the growth rate (Velocity), which includes processing large data involved in business, including processing massive data in a timely and effective manner, and real-time data collection. Currently, big data faces problems such as a huge range of user technologies, a large number of devices, and almost massive real-time data. Moreover, the amount of data is growing exponentially, creating storage and backup difficulties, and so on. Fourth is the low value density (Value). The tendency of customer groups is to perform a large amount of data analysis, which is itself costly. Big data magic works to expand access to information throughout the world. Search applications are a good example. Traditionally search engines have been based on a number of relatively simple mathematical algorithms that rank matches roughly according to the number of matching search hits. However, search match volume is not naturally equivalent to what users are really seeking. Even today, existing search technologies cannot truly match customer demands. However, we are standing on the edge of a cliff, and Internet companies are about to make a spectacular leap in terms of search capabilities. Currently, concepts for new intelligent search technology are still in the laboratory. The accumulation of records from twenty or thirty years of social behavior has resulted in huge reserves of data. Information technology has been widely used and rapidly developed in the context of protecting people's privacy. These huge reserves were once thought to be just a byproduct of big data, but increasingly the three-world integration "People, machines, objects" consisting of networks (Cyberspace), the ever-growing capabilities of hardware processing and computing powers exceeding Moore's law of growth and the evolution of state data and the ability to associate these data with archived data have led to scientific research advances that allow the use of these data for community purposes.

The list of possible topics includes, but not limited to:

- Large data analysis of social network based on information sensing platform
- Public opinion analysis based on big data
- Network marketing based on big data
- Computer information processing based on big data
- Network security analysis based on big data
- Community detection method for big data networks
- Community activity prediction based on big data analysis
- Performance analysis for big data
- Network science for big data
- Data cleaning approach and technology for network big data
- Data governance method for network big data
- Business intelligence based on network big data
- Data management for network big data
- Data privacy for network big data
- Network behavior based on network big data
- Prediction and visualization of network big data
- Network big data analysis for management and decision-making
- Modeling and data mining for network big data

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