Big Search In Cyberspacebig Search In Cyberspace

Abstract

- With the rapid development of big data analytics, mobile computing, Internet of Things, cloud computing and social networking, cyberspace has expanded to a cross-fused and ubiquitous space made up of human beings, things, and information.

- Internet applications have evolved from Web 1.0 to Web 2.0 and Web 3.0, and web information has seen an explosive growth, which is strongly promoting the advent of a global era of big data.

- In this ubiquitous cyberspace, traditional search engines can no longer fully satisfy the evolving needs of various types of users. Therefore, search engines must make completely innovative, revolutionary changes for the next generation of search, which is referred to as “big search”.

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- This paper first studies thedevelopment needs of big search. Then, big search is defined, and the 5S properties (Sourcing, Sensing, Synthesizing, Solution, and Security) of big search, which are different from those of traditional search engines, are elaborated.

- Also, the paper provides a system architecture for big search, explores the key technologies that support the 5S properties, and describes potential application fields of big search technology. Finally, the research opportunities of big search are discussed

EXISTING SYSTEM

- Traditional search engines fill the information gap between people and the information space, playing a key role in spurring on the rapid development of theInternet and accelerating the penetration of Internet applications[1], [2], [3], [4], [5], [6].

- However, with the expansion of the search space from an information-oriented Internet to a ubiquitous space of man-information-thing interconnection, traditional search engines are face greater difficulty in satisfying the needs of users.

- Inevitably, using a big search engine is raised as an option. The followingis a briefing on the origin of big search from the following perspectives: web search space, web application modes,advent of the big data era, basic concept of big search,and challenges facing search engines.

DISADVANTAGES

- Intelligent transportation. An intelligent transportation search system is a typical application system on Web 3.0. Users can search and discover their preferred service plans, travel modes, traffic information, unobstructed routes, moving trajectories, and feature objects.
- Social networks. A social network search system is a typical application system in large-scale online social networks, in which many social-network specified searching functions are available, such as searching for standpoints, social relations and communities, and deep professional knowledge.
- Medicine and healthcare. There are many typical scenarios of medical and healthcare search, including personalized healthcare search engines, smart retrieval of medical data, abnormal health alarms, and smart decision support systems for diagnosis and treatment.

Proposed System

- In big search, the search intent understanding means eliminating the multi-modality and ambiguity [30] ofuser's input, and obtaining a quick and accurate understandingof his/her search intent with the context [31] and semantics [32] of the query words.
- As a result, the search engine not only achieves the goal of accuratesearching, but also provides a better user experience with the simplified interaction with users.
- In big search, an intelligent solution is a set of sortedanswers based on the knowledge acquired from the ubiquitous cyberspace and Web 2.0/3.0 applications with accurate understanding of the user intent.
- Sortedanswers imply that the results are screened according to their value and prioritization. The solutions are smartanswers because they are not the simple matching of existingweb pages and information, but the specifi answer meeting the user's intent.

ADVANTAGES

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- For huge entities with associated networks formed by explicit or implicit data, we need to construct a knowledge warehouse for the giant entities and data search, and design a management method to match the knowledge warehouse.

- Considering the user context and condition information, we need to accurately grasp the user's search intent.

- We have to solve directional access issues of massive heterogeneous data, and achieve indirect knowledge findings based on deduction.

SYSTEM REQUIREMENT

- **HARDWARE REQUIREMENT:**
- System : Pentium IV 2.4 GHz.
- Hard Disk : 40 GB.
- Floppy Drive : 1.44 Mb.
- Monitor : 15 VGA Colour.
- Mouse : Sony.
- Ram : 512 Mb.

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- **SOFTWARE REQUIREMENT:**
- Operating system : Windows XP.
- Coding Language : ASP. Net with C#
- Data Base : SQL Server 2005.

Conclusion

- In this paper, based on the research topics, needs and challenges of search engines in ubiquitous cyberspace, we have explored the concept of big search, and its 5S features which are different from traditional search engines.
- Then, we discussed the key techniques of big search that support the 5S features and the system architecture of big search, and illustrated two prospect applications of big search technology.
- Finally, research opportunities of big search are summarized.
- Big search technology is still in its infancy.
- We should grasp the research opportunities to explore this technology, and take initiatives in the next round of information revolution to improve the efficiency of social impact.