DDTA 2016 – The Workshop on Data-Driven Talent Acquisition

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ABSTRACT

Expertise search is a well-established field in information retrieval. In recent years, the increasing availability of data enables accumulation of evidence of talent and expertise from a wide range of domains. The availability of big data significantly benefits employers and recruiters. By analyzing the massive amounts of structured and unstructured data, organizations may be able to find the exact skill sets and talent they need to grow their business. The aim of this workshop is to provide a forum for industry and academia to discuss the recent progress in talent search and management, and how the use of big data and data-driven decision making can advance talent acquisition and human resource management.

CCS Concepts

•Information systems → Expert search; Business intelligence; Enterprise search;

Keywords

Talent Acquisition; Human Resource Management; Expertise Retrieval; Data-driven

1. INTRODUCTION

Employees are one of the greatest assets of a company. Recruiting the right people and retaining the best are crucial for many organizations. Talent acquisition and management in many businesses have traditionally revolved around personal relationships or decision making based on experience rather than deep quantitative analysis. Big data analytics enables huge opportunities to improve workforce planning, development and productivity, including to identify potential talents and experts, to predict hiring needs, and to optimize hiring performance. According to [3], a leading healthcare organization, has used data analytics techniques to generate more than 100 million dollars in savings while simultaneously improving the engagement of its workforce.

Another company reduced its retention bonuses by 20 million dollars and employee attrition by half, due to the use of predictive behavioral analytics.

On the other hand, expert search is a well-established field in information retrieval [1]. With the TREC Enterprise Track in 2005 [2], there was an early focus on the enterprise setting. In recent years, the increasing availability of data enables accumulation of evidence of talent and expertise from a wide range of domains beyond the enterprise. The availability of big data significantly benefits employers and recruiters. By analyzing the massive amounts of structured and unstructured data, organizations may be able to find the exact skill sets and talent they need to grow their business. The aim of this workshop is to provide a forum for industry and academia to discuss the recent progress in talent search and how the use of big data and data-driven decision making can advance talent acquisition and management.

2. WORKSHOP TOPICS

The workshop seeks to uncover the next research frontiers in talent acquisition and management by exploiting the abundance of data. Examples of topic of interest include (but are not limited to):

- Talent and expertise related data in heterogeneous media: enterprise, Web, user generated content (social media sites, weblogs, microblogs, wikis), Linked Open Data, etc.

- Integration of expertise data from multiple sources

- Expertise retrieval

- Expert profiling

- Data analytics for human resource management

- Prediction of hiring needs and optimization of hiring performance

- Personalized job search

- Recommender systems for talent acquisition (e.g., job recommendation)

- Behavior modelling of job seekers

- Data-driven marketing for talent acquisition

- Test collections and evaluation methodology

- Interfaces, case studies, and applications

3. PROGRAM

The workshop called for two types of submissions: 1) papers including research results, position papers, and practice and experience reports, having 4-8 pages (regular), or 2-4 pages (short); 2) demo proposals describing a prototype of system, up to a maximum of 2 pages. All submissions must be formatted according to the ACM SIG proceedings format. The reviewing process is double-blind, so submissions need to be anonymous. At least one author of each accepted paper is required to present their work at the workshop. The list of accepted contributions, corresponding resources, and all other outcomes of the workshop are available at https://sites.google.com/site/ddta2016cikm.

4. WORKSHOP ORGANIZERS

- **Yi Fang** is assistant professor in Santa Clara University. He received his PhD in Computer Science from Purdue University, West Lafayette. He has published in reputable conferences and journals including SIGIR, CIKM, WSDM, AAAI, FnTIR, and IRJ. He is the program committee member for a number of conferences including SIGIR, CIKM, IJCAI, AAAI, ECIR, ICDM, AIRS, etc. He served as the Tutorial Chair for IEEE BigData 2016 and the Senior Program Committee member for CIKM 2016. He also served as Local Chair for CIKM 2013 and received the Outstanding Service Award for his service.

- **Maarten de Rijke** is full professor of Information Processing and Internet in the Informatics Institute at the University of Amsterdam. He holds MSc degrees in Philosophy and Mathematics (both cum laude), and a PhD in Theoretical Computer Science. He is editor-in-chief of ACM Transactions on Information Systems, co-editor-in-chief of Foundations and Trends in Information Retrieval and of Springer's Information Retrieval book series, (associate) editor for various journals and book series, and a current and former coordinator of retrieval evaluation tracks at TREC, CLEF and INEX. He was co-chair for SIGIR 2013, general chair for ECIR 2014, co-chair "web search systems and applications" for WWW 2015, short paper co-chair for SIGIR 2015, and program co-chair for information retrieval for CIKM 2015. He is also general co-chair of ICTIR 2017 and WSDM 2017.

- **Huangming Xie** is the Staff Data Scientist and Tech Lead at LinkedIn. He received his PhD in Computation and System Biology from Massachusetts Institute of Technology (MIT) and was a Postdoctoral Research Fellow at Harvard Medical School. He worked as Senior Data Scientist at Simply Hired, one of the largest job search engines in the world, by exploring big data analytics to improve job search relevancy and match the right candidate for the right job. At LinkedIn, He spearheaded a cross-team initiative to build the member value action framework, creating leverage for multiple analytics and machine learning projects across the company. He is leading data science for Search & Discovery team at LinkedIn to improve personalized search for people, jobs, content, companies and more across desktop and mobile.

5. REFERENCES

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