**KDD 2018 - Workshop Proposal**

**The 1st International Workshop on Organizational Behavior and Talent Analytics**

**Organizers**

Hui Xiong, Rutgers University

Hengshu Zhu, Baidu Inc.

Tong Xu, University of Science and Technology of China

**Organizers Biographies**

**Hui Xiong, Rutgers University**

Prof. Hui Xiong is currently a Full Professor at Rutgers, the State University of New Jersey, where he received RBS Dean’s Research Professorship (2016), two-year early promotion/tenure (2009), the Rutgers University Board of Trustees Research Fellowship for Scholarly Excellence (2009), the ICDM-2011 Best Research Paper Award (2011), and the 2017 IEEE ICDM Outstanding Service Award (2017). Right now, he is on leave and serving as a Distinguished Scientist at Baidu Research. He received the B.E. degree from the University of Science and Technology of China (USTC), China, the M.S. degree from the National University of Singapore (NUS), Singapore, and the Ph.D. degree from the University of Minnesota (UMN), USA. His general area of research is data and knowledge engineering, with a focus on developing effective and efficient data analysis techniques for emerging data intensive applications. He has published prolifically in refereed journals and conference proceedings (4 books, 80+ journal papers, and 100+ conference papers). He is a co-Editor-in-Chief of Encyclopedia of GIS, an Associate Editor of IEEE Transactions on Data and Knowledge Engineering (TKDE), IEEE Transactions on Big Data (TBD), ACM Transactions on Knowledge Discovery from Data (TKDD), and ACM Transactions on Management Information Systems (TMIS). He has served regularly on the organization and program committees of numerous conferences, including as a Program Co-Chair of the Industrial and Government Track for the 18th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD-2012), a Program Co-Chair for the IEEE 2013 International Conference on Data Mining (ICDM), a General Co-Chair for the IEEE 2015 International Conference on Data Mining (ICDM), and a Program Co-Chair of the Research Track for KDD-2018. For his outstanding contributions to data mining and mobile computing, he was elected an ACM Distinguished Scientist in 2014.

**Hengshu Zhu, Baidu Inc.**

Dr. Hengshu Zhu is currently a senior data scientist and tech lead of Talent Intelligence Center (TIC) at Baidu Inc., working on emerging data mining and machine learning research problems, with a focus on developing effective and efficient data analysis techniques for Organizational Behavior and Talent Analytics related business applications. He received the Ph.D. degree in 2014 and B.E. degree in 2009, both in Computer Science from University of Science and Technology of China (USTC). He has filed 30+ invention patents and published 50+ research papers in top-tier journals (e.g., TKDE, TMC, TKDD, TIST, TC) and conference proceedings (e.g., KDD, IJCAI, AAAI, ICDM, SDM). He has served regularly on the program committees of numerous conferences, and as a reviewer for many top-tier journals in relevant research fields. He was the recipient of the Best Student Paper Award of KSEM-2011, WAIM-2013, CCDM-2014, and the Best Paper Nomination of ICDM-2014. For his outstanding contribution on mobile computing and business intelligence, he was honored to receive the Distinguished Dissertation Award of Chinese Academy of Sciences (2016), the Distinguished Dissertation Award of China Association for Artificial Intelligence (2016), the Special Prize of President Scholarship of Chinese Academy of Sciences (2014), and was elected a KDD-2016 Rising Star by Bing Academic Search (2016). In particular, his research on intelligent talent analytics was widely covered by famous business media, such as the Harvard Business Review.

**Tong Xu, University of Science and Technology of China**

Dr. Tong Xu is currently working as a Postdoctoral Researcher of the Anhui Province Key Laboratory of Big Data Analysis and Application, University of Science and Technology of China (USTC), Hefei, China. He received the Ph.D. degree in USTC, 2016. Right now, he also serves as the Senior Visiting Scholar of Baidu Inc., a committee member of the Youth Working Committee, Chinese Information Processing Society of China, and a communication committee member of the Expert Committee of Social Media Processing. He has authored 20+ top-tier journal and conference papers in the fields of social network and organizational behavior analysis, including KDD, AAAI, ICDM, SDM, etc. Besides, he has served on numerous conferences, such as a session chair of CCKS 2018, and the program committee member of KDD, SDM, PAKDD, etc.

**Main Contact**

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**Title:** The 1st International Workshop on Organizational Behavior and Talent Analytics

**Background & Motivation**

In today’s competitive and fast-evolving business environment, it is a critical time for organizations to rethink how to make talent-related decisions in a quantitative manner. Indeed, the recent big data trend has made its way to talent management. The availability of large-scale talent data provides unparalleled opportunities for business leaders to understand the talent behaviors and gain tangible knowledge, which in turn deliver intelligence for real-time decision making and effective talent management at work for their organizations. In the past few years, **Organizational Behavior and Talent Analytics** have increasingly attracted attentions from KDD communities, and a number of research/applied data science efforts have been devoted. To this end, the purpose of this workshop is to bring together researchers and practitioners to discuss both the critical problems faced by Organizational Behavior and Talent Analytics related domains, and potential data-driven solutions by leveraging state-of-the-art data mining technologies.

**Target Audience**

The target audience includes researchers and professionals in the fields of Organizational Behavior, Human Resource Management, Talent Analytics and related areas. The workshop also aims to attract researchers and practitioners from industry communities, since it covers research/applied data science efforts for the development of applications in fields such as talent recruitment, talent development, job recommendation, online professional social networks, enterprise information system, and business intelligence.

**Relevance to KDD**

Organizational Behavior and Talent Analytics are emerging research topics in Data Mining. Indeed, they have increasingly attracted attentions from both academia and industry in previous KDDs. For example, in the past two years (i.e., KDD-2016, KDD-2017), a number of papers have been published in relevant topics, including talent recruitment [1,4,9], personalized job recommendation [3,8], professional social network analysis [2,5], and talent career analysis [6,7]. However, along this line, there still exist numerous open problems and challenges to be addressed, especially in terms of how to leverage data mining techniques for talent-related decision making, such as performance evaluation, talent retention, talent development, job matching, team management, and organizational stability analysis. Based on the above, we believe this workshop is strongly relevant to ACM KDD-2018, which is a global event for bringing together researchers, practitioners, innovators, decision-makers, and business experts working in the field of data mining.

**Reference**

[1] Zhu et al., [Recruitment Market Trend Analysis with Sequential Latent Variable Models](http://www.kdd.org/kdd2016/subtopic/view/recruitment-market-trend-analysis-with-sequential-latent-variable-models), KDD-2016

[2] Xu et al., [Talent Circle Detection in Job Transition Networks](http://www.kdd.org/kdd2016/subtopic/view/talent-circle-detection-in-job-transition-networks), KDD-2016

[3] Li et al., How to Get Them a Dream Job?, KDD-2016

[4] Liu et al., Crystal:Employer Name Normalization in the Online Recruitment Industry, KDD-2016

[5] Yu et al., Identifying Decision Makers from Professional Social Networks, KDD-2016

[6] Kapu et al., Ranking Universities Based on Career Outcomes of Graduates, KDD-2016

[7] Li et al., Prospecting the Career Development of Talents: A Survival Analysis Perspective, KDD-2017

[8] Borisyuk et al., LiJAR: A System for Job Application Redistribution towards Efficient Career Marketplace, KDD-2017

[9] Liu et al., Supporting Employer Name Normalization at both Entity and Cluster Level, KDD-2017

**Topics of Interest**

This workshop aims to bring together leading researchers, practitioners and entrepreneurs to exchange and share their experiences and latest research/application results on all aspects of **Organizational Behavior and Talent Analytics** based on data mining technologies. It will provide a premier interdisciplinary forum to discuss the most recent trends, innovations, applications as well as the real-world challenges encountered and corresponding data-driven solutions in relevant domains. The topics of interest include but not limited to:

* Human resource management
* Market intelligence
* Enterprise intelligence
* Organizational social networks
* Organizational change and stability
* Organizational culture
* Talent recruitment
* Talent psychology
* Talent retention and incentive
* Job recommendation
* Person-job fit and job satisfaction
* Career development
* Personality and leadership
* Perception and individual decision making
* Performance Assessment
* Learning and development

**Invited Talk Speaker**

Hui Xiong (Rutgers University), *Talent Analytics: Prospects and Opportunities*

**Program Committee (In Alphabetical Order)**

1. Ahmed Abbasi, University of Virginia
2. Leman Akoglu, Carnegie Mellon University
3. Weiguo (Patrick) Fan, Virginia Tech
4. Xiao Fang, University of Delaware
5. Yong Ge, University of Arizona
6. Bo Jin, Dalian University of Technology
7. Xiaolin Li, Nanjing University
8. Chuanren Liu, Drexel University
9. Alexander Tuzhilin, New York University
10. Junjie Wu, Beihang University
11. Keli Xiao, Stony Brook University
12. Shipeng Yu, LinkedIn
13. Fuzheng Zhang, Microsoft
14. Xi Zhang, Tianjin University
15. Zhiqiang (Eric) Zheng, University of Texas, Dallas
16. Wenjun Zhou, The University of Tennessee, Knoxville

**Length:** Half Day

**Program Sketch (Tentative)**

* 13:15-13:30: Opening & Welcome
* 13:30-14:30: Invited Talk
* 14:30-15:30: 3 Presentations (15 minutes + 5 minutes Q&A for each presentation)
* 15:30-16:00: Coffee Break
* 16:00-17:00: 3 Presentations (15 minutes + 5 minutes Q&A for each presentation)
* 17:00-17:15: Closing Remarks

**Expected Attendance/Submissions**

Nowadays, KDD has become a premier conference for researchers and practitioners all over the world, especially for the pioneering high-tech enterprises to attract AI-related talents. Since talent analytics has become an increasingly important research focus for both academia and industry as mentioned above, we expect that this workshop could receive wide attention of attendees with interdisciplinary background, which leads to around **60-80 attendances**.

At the same time, we will disseminate the CFP broadly to ensure the quantity of submissions, so that at least **15-20 submissions** are expected. Furthermore, considering the practical characters of this workshop, to enrich the presentations, we will strongly encourage the authors to submit their **demonstrations**, e.g., intelligent system for talent analytics. Correspondingly, presentations will be intuitively divided into different tracks according to their focuses, i.e., the **research/practical track**.