

Industry & Government Track Program Chairs' Welcome

The 2014 Industry & Government Track continues the focus on real applications of KDD technologies that provide measurable and documented benefits to Industry and Government. One of the changes implemented this year is the merger of the previous years' Industry Practice Expo (IPE) with the Industry & Government Track, to be presented as the Industry Government Track Invited Talk series. We have done this in an effort to better align scheduling and content.

Overall, the Industry & Government Track is focused on highlighting the contributions that KDD researchers and practitioners have made towards solving problems in industry and government organizations, as well as increasing awareness and understanding of practical issues regarding the deployment and use of KDD technologies. We solicited papers in three areas:

- (1) Deployed papers that describe the implementation, deployment, and evaluation of KDD systems in industry and government.
- (2) Emerging papers that are not about deployed systems but solve a real problem in industry and government using real data, solid evaluation and a clear path to deployment. The expectation is that these applications will be deployed in the future and these papers are reporting on early work.
- (3) Discovery papers that describe discoveries of new knowledge that is valuable to an industry or government organization. These papers are typically very rare and the discoveries need to be evaluated by domain experts.

There were several classes of technically sound papers that were not a good fit to the Industry and Government track and were thus rejected. Papers that asserted the existence of a potential problem that could be solved by KDD technologies but provided no evidence of interest from potential users of that problem, and papers that used real data but did not attempt to deal with real-world complexities were rejected. Papers that proposed and applied a novel algorithm to a real dataset that achieved better performance according to some metric, but did not have any evidence of external validation or interest from potential users, were also rejected from this track. Those papers are valuable for the KDD community but not a good fit for the Industry & Government Track which is focused on real, deployed (or on the path to deployment) applications as opposed to applying an algorithm to a data set. As one PC member stated in a review "Using real data is not the same as solving real problems in a real operational setting."

On the other hand, papers that discussed enabling infrastructure or issues of general interest regarding the real-world use of KDD technologies were viewed favorably, even when they did not discuss a specific case study or application. These infrastructure and issue papers were included in the "emerging" category.

The application areas of accepted papers cover a broad range, including the theme this year of social good, public safety, advertising, social analytics, personalization, workforce analytics, health, and others, showing the wide range of fields to which KDD is being applied and adding value.

The track received **193** papers and accepted **44**, for an overall acceptance rate of **22.7%**. All submitted papers received at least three reviews from separate PC members. For papers with divergent recommendations, a discussion among reviewers was held to reach consensus. The Senior PC member assigned to the paper then performed a meta-review of all papers whose ratings and reviews were sufficiently positive that there was a possibility of acceptance. We then made our final decisions based on paper quality, initial reviews, meta-review, and fit to the track's goals as evidenced by the paper's ranking on all of the review criteria.

We would like to thank all our PC and Senior PC members whose reviews were critical in helping us select the best possible program for this year's Industry and Government track.

The Industry & Government Track Invited Talk series features presentations from leading experts who have developed and deployed large-scale data mining applications and systems in their respective fields that have generated measurable and meaningful impact. We trust that this opportunity for the KDD community to hear directly from industry and government practitioners will inspire new advances and broader interdisciplinary collaboration between researchers, industry and government counterparts and organizations leveraging data for social good.

Following in the steps of three previous Industry Practice Expo (IPE) sessions, we have worked hard to live up to the high bar set by previous speakers and to strive for the right balance between business context and technical depth in this year's invited talks.

This year, we present to you world-renowned experts whose talks will help you learn and take key ideas back to your respective professional endeavors. Featured topics include applications in medicine, crime, data collection and compensation in emerging markets, personalization, using unstructured text and imaging data from natural disasters, real-world predictive modeling infrastructure and examples of data science work from the New York Mayor's Office. Attendees will also learn about the new science of Information Environment Security. We're excited that a number of talks align with the conference theme of "Data Science for Social Good". Jake Porway (of DataKind) will host an "ignite"-style session where NGOs and other non-profits will present their applications, goals and issues related to their data assets to further inspire attendees in the area of social good.

It has been a great pleasure to work with our invited talk advisory committee comprising Misha Bilenko, Eric Bloedorn, Usama Fayyad, Johannes Gehrke, Ronny Kohavi, Ying Li, Gabor Melli, Rajesh Parekh, Jian Pei, Gregory Piatetsky, Ramasamy Uthurusamy and Mohammed Zaki. We thank them and the other members of the organizing committee for advice and support throughout the search for candidate speakers.

We warmly welcome you to the KDD 2014 Industry & Government Track, and hope you find these papers and invited talks interesting and insightful. Your suggestions and comments are much appreciated.

Best Regards,

Rayid Ghani, Prem Melville, Brian Dalessandro, and Paul Bradley