

INFORMATICS COLLOQUIUM

Speaker:

Dr. Gianluca Demartini, University of Queensland, Australia

Human Factors and Bias in Crowdsourced Information Retrieval Evaluation

Abstract:

In Information Retrieval evaluation, the classic approach of adopting binary relevance judgments has been replaced by multi-level relevance judgments and by gain-based metrics leveraging such multi-level judgment scales.

In this talk I will present recent research where we explore different relevance scales to make judgements more natural for crowd assessors. Our results show that a 100-level relevance scale maintains the flexibility of unbounded scales in providing assessors with ample choice when judging document relevance. It also allows assessors to judge on a more familiar scale and to perform efficiently since the very first judging task.

I will then discuss research on how users perceive bias in search results, and the degree to which their perceptions differ and/or might be predicted based on user attributes.

Finally, I will discuss how crowd workers could undermine data quality. One of the most popular quality assurance mechanisms in crowdsourcing is based on gold questions: the use of a small set of tasks of which the requester knows the correct answer and, thus, is able to directly assess crowd work quality. We show that such mechanism is prone to an attack carried out by a group of colluding crowd workers that is easy to implement and deploy).

Bio:

Dr. Gianluca Demartini is a Senior Lecturer in Data Science at the University of Queensland, School of Information Technology and Electrical Engineering. His main research interests are Information Retrieval, Semantic Web, and Human Computation. He received the Best Paper Award at the European Conference on Information Retrieval (ECIR) in 2016 and the Best Demo Award at the International Semantic Web Conference (ISWC) in 2011. He serves as area editor for the Journal of Web Semantics and as editorial board member for the Information Retrieval journal. He has published more than 80 peer-reviewed scientific publications including papers at major venues such as WWW, ACM SIGIR, VLDBJ, ISWC, and ACM CHI. His research has been supported by the UK Engineering and Physical Sciences Research Council (EPSRC) and by the EU H2020 framework program. He is an ACM Distinguished Speaker since 2015.

Date and time:

Wednesday June 27th, 2018, 2.00 pm

Location:

Pérolles 21, room A230, Bd de Pérolles 90, Fribourg

Contact person:

Prof. Philippe Cudré-Mauroux

The colloquium is free and open to the public.