

# BIAS - Bias in Information, Algorithms, and Systems

iConference 2018 Workshop Submission

**Title:** BIAS - Bias in Information, Algorithms, and Systems

**Organizers:**

- Prof. Paul Clough, Information School, University of Sheffield
- Prof. Jahna Otterbacher, Open University of Cyprus
- Dr. Robert Jäschke, Information School, University of Sheffield
- Dr. Jo Bates, Information School, University of Sheffield

**Abstract:** In today's world, and more than ever before, information, algorithms and systems have the potential to influence and shape our experiences and views. With increased access to digital media and the ubiquity of data-driven processes in all areas of life, awareness and understanding of areas such as algorithmic accountability, transparency, governance and bias are becoming increasingly important. Recent cases in the news and media have highlighted the wider societal effects of data and algorithms requiring we pay it more attention.

**Description:** The **purpose** of the workshop is to bring together researchers from different disciplines who are interested in analysing and tackling bias within their discipline, arising from the data, algorithms and methods they use. The theme of the workshop is *bias in information, algorithms, and systems*, which includes, but is not limited to, the following areas:

- Bias in sources of data and information (e.g., datasets, data production, publications, visualisations, annotations, knowledge bases)
- Bias in categorisation and representation schemes (e.g., vocabularies, standards, etc.)
- Bias in algorithms (e.g., information retrieval, recommendation, classification, etc.)
- Bias in the broader context of information and social systems (e.g., social media, search engines, social networks, crowdsourcing, etc.)
- Considerations in evaluation (e.g., to identify and avoid bias, to create unbiased test and training collections, crowdsourcing, etc.)
- Interactions between individuals, technologies and data/information
- Considerations for data governance and policy

The **intended audience** comprises researchers from multiple disciplines, including data/information science, computer science, the social sciences, and psychology. As well as academics, the workshop may also be of great interest to practitioners (e.g., in government, non-profit organisations, or companies) and educators (e.g., in digital literacy).

The **format** of the workshop is a combination of invited talk(s), presentations by participants based on submitted and peer-reviewed papers and posters, and engagement activities to

gather and exchange ideas and suggestions for future directions within the field and stimulate potential research collaborations.

To introduce the topic of the workshop and attract participants we plan to have at least one *keynote speaker*. Potential candidates include:

- Ricardo Baeza-Yates (CTO of NTENT and former head of Yahoo! Research)
- Dirk Lewandowski (Hamburg University of Applied Sciences)
- Claudia Wagner (GESIS Cologne)
- Sarah Gates (UK Cabinet Office)
- A representative of ACM's Working Group on Algorithmic Transparency and Accountability (e.g., Ansgar Koene from the University of Nottingham, Simson L. Garfinkel from the US Census Bureau, or Jeanna Neefe Matthews from Clarkson University)

In addition, we will select two or three topics of specific interest (e.g., based on the submissions or authors' suggestions) and discuss them in an engaging setting. This could be a world cafe or smaller round table groups that prepare a presentation. The outcomes will be discussed in a final session.

We propose the following *tentative schedule*:

- 09:00 welcome & introduction
- 09:30 keynote
- 10:30 coffee break
- 11:00 paper session 1
- 12:30 lunch break
- 14:00 paper session 2
- 15:00 topic session part 1
- 15:30 coffee break
- 16:00 topic session part 2
- 17:00 summary & farewell

Information about the workshop will be provided on a publicly accessible web site. The call for papers and participation will be promoted using standard channels of communication, including mailing lists, social media, and individual messages to potential participants.

Submitted papers will be peer-reviewed by at least two members of the programme committee (PC). Potential (unconfirmed) candidates for the PC include Marina Jirotko (University of Oxford), Ansgar Koene (University of Nottingham), Emilee Rader (Michigan State University), Engin Bozdog (Philips Netherlands), David Garcia (ETH Zurich), Taina Bucher (University of Copenhagen), Claudia Wagner (GESIS Cologne), Dirk Hovy (University of Copenhagen), Kristian Lum (Human Rights Data Analysis Group), Carlos Castillo (Eurecat - Technology Centre of Catalonia), plus the workshop organisers. Apart from research papers other types of submissions like position statements, abstracts (talks), posters, or research proposals are also welcome. Submission and reviewing will be facilitated using the EasyChair platform.

We foresee two main **goals** of the workshop: (i) to identify potential avenues for future directions around the notions of bias, algorithmic transparency and accountability. Depending on the success of the workshop and our discussions we will seek to publish the directions as a position paper, e.g., in ACM SIGIR Forum; (ii) to propose and coordinate a

special issue on bias for the journal Online Information Review (Bates and Jäschke are co-editors). All accepted submissions will be published as workshop proceedings on an appropriate platform (for instance, <http://ceur-ws.org/> or our institutional repository White Rose Research Online). Their metadata will also be provided in BibSonomy (<https://www.bibsonomy.org/>) and everything will be linked on the workshop homepage, together with the program and presentation slides.

We believe that the workshop's topic is **highly relevant to the iConference** and will be of great interest to delegates as research in many iSchools focuses on interactions between information, technology and people. Understanding the biases inherent and external to data and information sources, algorithms and systems is essential in today's data-driven world. We believe that the combination of invited talks, participant papers and engagement activities will help to stimulate new and innovative discussions around the topic of bias that cuts across multiple disciplines. This workshop has not been run at prior iConference events.

**Duration:** full-day workshop

**Attendance:** We expect around 20 participants and prefer to have room for at most 30 participants.

**Special Requirements:** none