Preface to the 2nd Workshop on Bridging the Gap between Information Science, Information Retrieval and Data Science

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Abstract

BIRDS 2021 is the second in a series of workshops to bridge the gap between Information Science, Information Retrieval and Data Science. It was held in conjunction with CHIIR 2021 and consisted of a selection of accepted papers and invited talks.

1. Introduction

Can Data Science, Information Science, Information Retrieval and Human-Computer Interaction get together and learn from each other? While research is often conducted in silos, i.e. within a community, the aim of the BIRDS (Bridging the Gap between Information Science, Information Retrieval and Data Science) workshop it to bring together these different communities. The idea was born from the observations the workshop organisers made as part of the Information Retrieval (IR) community, where over the last decades user- and system-oriented approaches started to meld [1]. With the emergence of more data-driven methods, in particular, in the era of deep and machine learning with all its potential biases and the need for transparency, as well as the data scientists' aim to explore, find, combine and make sense of all sorts of heterogeneous internal and external data (be it textual or multimedia, unstructured data, data streams or structured database entries), one idea is to broaden the scope of classical IR and its user- and system-oriented methods, often rooted in Information Science and Human-Computer Interaction, to broader Data Science concepts.

2. Accepted Papers and Invited Talks

BIRDS 2021, which was held online at CHIIR 2021, is the second in a series of workshops, after BIRDS 2020 at SIGIR [2]. It consisted of invited talks as well as peer-reviewed, accepted papers. 6 papers were accepted which are featured in these proceedings:

- Ghadeer Abuoda, Chad Hendrix and Stuart Campo: *Automatic Tag Recommendation for the UN Humanitarian Data Exchange*;
- Nicholas Collis and Ingo Frommholz: *AQUACOLD: A Novel Crowdsourced Linked Data Question Answering System*;
- Mahmoud Artemi and Haiming Liu: *A User Study on User's Attention for an Interactive Content-based Image Search System*;
- Morshed Adnan, Michael Alexander Kaufmann and Matthias Hemmje: *Social Media Mining to Study Social User Groups by Visualizing Tweet Clusters using Word2Vec, PCA and K-Means*;
- Stefan Wagenpfeil et *al.*: *Query Construction and Result Representation based on Graph Codes and*
- Thoralf Reis et *al.*: *Towards Modeling AI-based User Empowerment for Visual Big Data Analysis*.

The invited talks were as follows:

- *User Discovery and Exploration in Future Digital Libraries* by Ed Fox, Virginia Tech, USA;
- *Searching, fast and slow* by Tony Russell-Rose, 2Dsearch and Goldsmiths, University of London, UK;
- *Data Science and Information Access for Social Research on Technoscientific Issues in the Media* by Emanuele Di Buccio, University of Padua, Italy;
- *Understanding and solving the complex IIR challenges of searching enterprise content* by Martin White, Intranet Focus Ltd and University of Sheffield, UK;
- *Exploiting clinical data to build patients trajectories* by Lorraine Goeuriot, Univ. Grenoble Alpes, France;
- *Querying by Example Using Bootstrapped Explainable Text Categorization in Emergent Knowledge-Domains* Tobias Eljasik-Swoboda, Fernuniversität Hagen, Germany and
- *Design of use case diagrams, personas and GUIs based on the CRISP4BigData process / Conceptual Design and Implementation of a graphical user interface for CRISP4BigData* by Kevin Berwind, Fernuniversität Hagen, Germany.

More information can be found on the BIRDS Web site[1]. Selected presentations were recorded and can be viewed on the BIRDS 2021 YouTube playlist[2].

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[1]https://birds-ws.github.io/birds2021/index.html
[2]https://www.youtube.com/playlist?list=PLI13W1gRqqf1v_gEucOYT049daq16IaQ2

References

[1] P. Ingwersen, K. Järvelin, The turn: integration of information seeking and retrieval in context, Springer-Verlag New York, Inc., Secaucus, NJ, USA, 2005.

[2] I. Frommholz, H. Liu, M. Melucci (Eds.), Proceedings of the First Workshop on Bridging the Gap between Information Science, Information Retrieval and Data Science (BIRDS 2020) (BIRDS), number 2741 in CEUR Workshop Proceedings, Aachen, 2020. URL: http://ceur-ws.org/Vol-2741/.