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Experimental IR Meets Multilinguality, Multimodality, and Interaction

7th International Conference
of the CLEF Association, CLEF 2016
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Proceedings

Editors

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Glasgow
UK

Linda Cappellato
University of Padua
Padua
Italy

Nicola Ferro
University of Padua
Padua
Italy

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Preface

Since 2000, the Conference and Labs of the Evaluation Forum (CLEF) has played a leading role in stimulating research and innovation in the domain of multimodal and multilingual information access. Initially founded as the *Cross-Language Evaluation Forum* and running in conjunction with the *European Conference on Digital Libraries* (ECDL/TPDL), CLEF became a standalone event in 2010 combining a peer-reviewed conference with a multitrack evaluation forum.

CLEF 2016¹ was hosted by the Computer Science Department of the School of Sciences and Technology of the University of Évora, Portugal, during September 5–8, 2016.

The CLEF Conference addresses all aspects of information access in any modality and language.

The conference has a clear focus on experimental IR as done at evaluation forums (CLEF Labs, TREC, NTCIR, FIRE, MediaEval, RomIP, TAC, etc.) with special attention to the challenges of multimodality, multilinguality, and interactive search ranging from unstructured, to semistructured, and structured data. We invited submissions on significant new insights demonstrated on the resulting IR test collections, on analysis of IR test collections, and evaluation measures, as well as on concrete proposals to push the boundaries of the Cranfield/TREC/CLEF paradigm.

The conference format consisted of keynotes, contributed papers, lab sessions, and poster sessions, including reports from other benchmarking initiatives from around the world.

The following scholars were invited to give a keynote talk at CLEF 2016: Djoerd Hiemstra (University of Twente, The Netherlands), Andreas Rauber (Technical University of Vienna, Austria), and Isabel Trancoso (INESC-TEC, Portugal).

CLEF 2016 received a total of 36 submissions. Each submission was reviewed by three Program Committee (PC) members, and the two program chairs oversaw the reviewing and follow-up discussions.

CLEF 2016 continued a novel track introduced at CLEF 2015, i.e., inviting CLEF 2015 lab organizers to nominate a “best of the labs” paper that was reviewed as a full paper submission to the CLEF 2016 conference according to the same review criteria and the same PC. This resulted in five full papers accepted, corresponding to four out of the eight CLEF 2015 labs.

We received 23 regular full paper submissions, of which 10 (43 %) were accepted for regular oral presentation and five (22 %, making a total of 65 %) for short oral presentation and poster presentation. We received seven short paper submissions, and accepted three (43 %).

¹ <http://clef2016.clef-initiative.eu/>

The conference teamed up with a series of workshops presenting the results of lab-based comparative evaluation. CLEF 2016 was the seventh year of the CLEF Conference and the 17th year of the CLEF initiative as a forum for IR evaluation.

In addition to these talks, the eight benchmarking labs reported results of their year-long activities in overview talks and lab sessions².

The seven labs and one workshops running as part of CLEF 2016 were as follows:

CLEFeHealth³ provides scenarios that aim to ease patients and nurses understanding and accessing of eHealth information. The goals of the lab are to develop processing methods and resources in a multilingual setting to enrich difficult-to-understand eHealth texts, and provide valuable documentation. The tasks are: handover information extraction; multilingual information extraction; and, patient-centered information retrieval.

ImageCLEF⁴ organizes three main tasks with a global objective of benchmarking automatic annotation, indexing, and retrieval of images. The tasks tackle different aspects of the annotation and retrieval problem and are aimed at supporting and promoting cutting-edge research addressing the key challenges in the field. A wide range of source images and objectives are considered, such as general multi-domain images for object or concept detection, as well as domain-specific tasks such as labelling and separation of compound figures from biomedical literature and scanned pages from historical documents.

LifeCLEF⁵ proposes three data-oriented challenges related to this vision, in the continuity of the two previous editions of the lab, but with several consistent novelties intended to push the boundaries of the state of the art in several research directions at the frontier of information retrieval, machine learning, and knowledge engineering including: an audio record-based bird identification task (BirdCLEF); an image-based plant identification task (PlantCLEF); and a fish video surveillance task (FishCLEF).

Living Labs for IR (LL4IR)⁶ inprovides a benchmarking platform for researchers to evaluate their ranking systems in a live setting with real users in their natural task environments. The lab acts as a proxy between commercial organizations (live environments) and lab participants (experimental systems), facilitates data exchange, and makes comparison between the participating systems. The task focuses on on-line product search.

News Recommendation Evaluation Lab (NEWSREEL)⁷ provides two tasks designed to address the challenge of real-time news recommendation. Participants can: (a) develop news recommendation algorithms and (b) have them tested by millions of users over the period of a few weeks in a living lab. The tasks are: benchmark news

² The full details for each lab are contained in a separate publication, the Working Notes, which are available online at <http://ceur-ws.org/Vol-1609/>.

³ <https://sites.google.com/site/clefehealth2016/>

⁴ <http://www.imageclef.org/2016>

⁵ <http://www.imageclef.org/node/197>

⁶ <http://living-labs.net/clef-ll4ir-2016/>

⁷ <http://www.clef-newsreel.org/>

recommendations in a living lab; benchmarking news recommendations in a simulated environment.

Uncovering Plagiarism, Authorship, and Social Software Misuse (PAN)⁸ provides evaluation of uncovering plagiarism, authorship, and social software misuse. PAN offered three tasks at CLEF 2016 with new evaluation resources consisting of large-scale corpora, performance measures, and Web services that allow for meaningful evaluations. The main goal is to provide for sustainable and reproducible evaluations, to get a clear view of the capabilities of state-of-the-art-algorithms. The tasks are: author identification; author profiling; and, author obfuscation.

Social Book Search (SBS)⁹ provides evaluation of real-world information needs that are generally complex, yet almost all research focuses instead on either relatively simple search based on queries or recommendation based on profiles. The goal of the Social Book Search Lab is to investigate techniques to support users in complex book search tasks that involve more than just a query and results list. The tasks are: a user-oriented interactive task investigating systems that support users in each of multiple stages of a complex search tasks; a system-oriented task for systems to suggest books based on rich search requests combining several topical and contextual relevance signals, as well as user profiles and real-world relevance judgements; and an NLP/text mining track focusing on detecting and linking book titles in online book discussion forums, as well as detecting book search research in forum posts for automatic book recommendation.

Cultural Microblog Contextualization (CMC) Workshop¹⁰ aims at developing processing methods for social media mining. The focus is on festivals that are organized or that have a large presence on social media. For its first edition, this workshop gives access to a massive collection of microblogs and urls and allows researchers in IR and NLP to experiment a broad variety of multilingual microblog search techniques (Wikipedia entity search, automatic summarization, and more).

A rich social program was organized in conjunction with the conference. A guided visit to the university's historic building was provided and the university's choir performed at the welcome reception; on the last night "Cante Alentejano" (a UNESCO Intangible Cultural Heritage) was staged for the participants. As the conference took place in Évora city center, participants were also able to visit this historic UNESCO city while going to the venue.

The success of CLEF 2016 would not have been possible without the huge effort of several people and organizations, including the CLEF Association¹¹ and the University of Évora, the Program Committee, the Lab Organizing Committee, the local

⁸ <http://pan.webis.de/>

⁹ <http://social-book-search.humanities.uva.nl/>

¹⁰ <https://mc2.talne.eu/~cmc/spip/>

¹¹ <http://www.clef-initiative.eu/association>

Organizing Committee in Évora, the reviewers, and the many students and volunteers who contributed along the way. We thank you all!

July 2016

Norbert Fuhr
Paulo Quaresma
Teresa Gonçalves
Birger Larsen
Krisztian Balog
Craig Macdonald
Linda Cappellato
Nicola Ferro

Organization

CLEF 2016, Conference and Labs of the Evaluation Forum – Experimental IR meets Multilinguality, Multimodality, and Interaction, was organized by the Computer Science Department of the School of Sciences and Technology of the University of Évora.

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