Experimental Evaluation and Hypertexts

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1   Abstract

The information retrieval field has a strong and long tradition, that dates back to the sixties of the past century, in the experimental evaluation of *Information Retrieval (IR)* systems in order to assess their performances in a scientifically sound and comparable way. In this context, large-scale international evaluation campaigns, such as *Text REtrieval Conference (TREC)*[1], *Cross-Language Evaluation Forum (CLEF)*[2], and *NII-NACSIS Test Collection for IR Systems (NTCIR)*[3], have been the vehicle and the conduit for the advancement of state-of-the-art techniques and for the development of innovative information systems through common evaluation procedures, regular and systematic evaluation cycles, comparison and benchmarking of the adopted approaches and solutions, spreading and exchange of knowledge and know-how.

Hypertexts play an important role in the information retrieval field, especially since the growth of the Web has given raise to an unprecedented need for effective information access techniques that take into consideration the multilinguality, multimodality, and hypertextual nature of the relevant information resources. This posed novel challenges for experimental evaluation which has to devise techniques for coping with experimental collections able to mimic the Web scale and for designing evaluation tasks that were representative of user needs on the Web.

This talk will discuss open issues concerning how experimental evaluation and hypertext could be better benefit each other. On the one hand, it is time for experimental evaluation to explicitly take into consideration the hypertextual nature of the resources when assessing performances based on retrieved items and not only considering systems as black-boxes that internally exploit the exiting hypertext. On the other hand, experimental evaluation produces huge amount of scientific data that would be better understood and interpreted if they were enriched with links to each other, to other resources, and to user-generated content, such as annotations explaining them.

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[1] `http://trec.nist.gov/`

[2] `http://www.clef-campaign.org/`

[3] `http://research.nii.ac.jp/ntcir/`

2 Short Bio

Nicola Ferro is assistant professor in Computer Science at the Department of Information Engineering and at the Faculty of Statistical Sciences of the University of Padua, Italy. He teaches the courses on Digital Libraries, Information Retrieval, and Databases. He received a Ph.D. degree in Computer Science from University of Padua in 2005. He holds a Laurea degree from University of Padua in Telecommunications Engineering. His main research interests are digital libraries and archives, their architectures, interoperability, and evaluation, as well as multilingual information access and its evaluation. He is and has been involved in the overall coordination of the CLEF (Cross Language Evaluation Forum) evaluation campaigns since 2005. He is scientific leader of the DL.org working group on quality in digital libraries. He has been programme co-chair of the CLEF 2010 Conference on Multilingual and Multimedia Information Access Evaluation. He is the coordinator of the PROMISE European Network of Excellence on the experimental evaluation of multilingual and multimodal information access systems. He has participated and participates in several national and international projects among which Europeana Connect (multilingual information access services for Europeana and their evaluation), Europeana v 1.0 (multilinguality and annotations in the Europeana Data Model), TrebleCLEF (best practices, collaboration, and evaluation for multilingual information access systems), TELplus (enhancement of The European Library portal towards Europeana), SAPIR (search in audio visual content using peer-to-peer information retrieval), and DELOS (the European network of excellence on Digital Libraries). He has published more than 70 papers on digital library architectures, interoperability, and services; multilingual information access and its experimental evaluation; the management of the scientific data produced during evaluation campaigns. He is member of ACM and IEEE.

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[4] `http://www.promise-noe.eu/`