

Preface

With the explosion of the volume of available information on the Web, the Information Retrieval Systems (IRSs) have become necessary to help the users to find relevant documents. Traditional IRSs may be drastically different if they may take into account the context of the information and the context of the end users' query. Contextual information includes both explicit and implicit knowledge about intentions of the user, environment the user is attached to and the system itself. Such factors constrain the search without intervening in it explicitly. One idea to improve the efficiency of IRSs is to make the contextual information explicit in order to enhance the retrieval performance.

This workshop was held in conjunction with the CONTEXT-05 conference (<http://www.context-05.org>) in Paris, France, July 5. The workshop was intended to explore related work, theoretical frameworks and applications which focus on contextual IRSs. It was intended for researchers in the areas of computer science, information retrieval, and digital libraries. The workshop's aim was to promote exchanges in these fields, to establish the current state of the art, to identify the emerging problems and to propose future research directions. The topics covered were contextual information retrieval modelling, contextual information retrieval metrics and assessments, theory in context and information retrieval, multiple contexts in information retrieval, adaptive and interactive information retrieval, multi-context based browsing, use of ontologies to contextualize the indexing, experiments with test collection of contextual information retrieval systems, tools to support contextual information retrieval.

We received 21 submissions and among them 10 papers from 6 countries were accepted for presentation. The presentations concerned several meanings of context including

- user context: profile, preferences, semantics of query terms,
- document context: metadata, annotation, language localization, usage or creation circumstances,
- physical context: geographical position, time, temperature,
- dynamic context: dynamic applications, reasoning

The context is used in various directions such as modelling (vector space, profile), filtering (MoBe application, Document Souls), browsing (neighbourhood, conceptual chain graph), and learning (profile). The context is mainly characterized by its dynamicity, it conveys a semantics/intention of the user not made explicit in the query, as well as a semantics/information of the environment not made explicit in the query. The discussion that followed the presentations raised the problems of defining the meanings and the boundaries of context, the evaluation of context-based information retrieval systems, the complexity in terms of resources and time which is increased with the context, the user-centred view and what context brings to information retrieval as well as what information retrieval brings to context.

The conclusion of the workshop is that the Web and the mobile environment contribute greatly to increase the research on contextual information retrieval, that classical models have to be reconsidered to take account of the context in each step of the retrieval process and finally that experimentation is a big challenge to evaluate the results from contextual information retrieval systems. Future directions concern theoretical aspects, the quantitative evaluations and metrics of the experiments, the generalization of local applications to large test collections, and the selection of the dimensions that represent the context. Classical test collections seem to be not useful for contextual information retrieval and a great effort has to be done in the building of new collections for interactive information retrieval systems (HARD Track in TREC, ...).

Thank you to the program committee who contribute for the high quality of the selected papers. Thanks particularly to Patrick Brézillon for his helpful support for the organization of the workshop. Thanks a lot to the organizing and local committee for their continuous support in preparing the workshop. Thank you to all the participants of the workshop who made the event successful and so interesting.

August 2005
Bich-Liên Doan

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Schedule

- 9h Introduction
Bich-Liên Doan
- 9h10 Contextual Information Retrieval using Concept Chain Graphs
Rohini K. Srihari, Sudarshan Lamkhede, Ammol Bhasin, Wei Dai
- 9h40 Document Souls: Joining Personalities to Documents to produce pro-active documents engaged in contextualized, independent search
Gregory Grefenstette, James G. Shanahan
- 10h10 Information Filtering and Retrieving of Context-Aware Applications within the MoBe Framework
Paolo Coppola, Vincenzo Della Mea, Luca Di Gaspero, Stefano Mizzaro, Ivan Scagnetto, Andrea Selva, Luca Vassena, Paolo Zandegiacomo Rizio
- 10h40 coffee break
- 11h10 Dealing with Fragmented Recollection of Context in Information Management
David Elswailer, Ian Ruthven, Christopher Jones
- 11h40 A Content Independent Model for Context Adaptation and Individualization in Information Retrieval
Thomas Mandl, Christa Womser-Hacker
- 12h10 Lunch
- 13h45 Can Vector Space Bases Model Context?
Massimo Melucci
- 14h15 Profiles re-usability for Personalized Access: application to users contexts determination
Max Chevalier, Chantal Soule-Dupuy, Pascaline Laure Tchienehom
- 14h45 Dynamic Documents Indexing in Evolving Contexts
Rolf Nossun, Vladimir Oleshchuk
- 15h15 Coffee break
- 15h45 Language Variation as a Context for Information
Ahmed Abdelali, Jim Cowie, Handy S. Soliman
- 16h15 Multi-context based browsing in Heterogeneous Semantic Spaces: The Ontology Switching Approach
Thomas Mandl, Christa Womser-Hacker
- 16h45 Discussion
- 17h15 Workshop closing
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