## Information Retrieval

## **Design and Sources**

Roslina Othman



IIUM PRESS

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

# INFORMATION RETRIEVAL: DESIGN AND SOURCES

#### **Editor**

Roslina Othman



**IIUM Press** 

# Published by: IIUM Press International Islamic University Malaysia

#### First Edition, 2011 ©IIUM Press, IIUM

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without any prior written permission of the publisher.

Perpustakaan Negara Malaysia

Cataloguing-in-Publication Data

Roslina Othman: Information Retrieval: Design and Sources

ISBN: 978-967-418-103-1

Member of Majlis Penerbitan Ilmiah Malaysia – MAPIM (Malaysian Scholarly Publishing Council)

Printed by : IIUM PRINTING SDN. BHD.

No. 1, Jalan Industri Batu Caves 1/3 Taman Perindustrian Batu Caves Batu Caves Centre Point 68100 Batu Caves Selangor Darul Ehsan

### **TABLE OF CONTENTS**

1. IR MODELS AND APPROACHES: AN OVERVIEW
2. SIMILARITY-BASED, RELEVANCE-BASED AND INFERENCE-BASED MODELS 7 Suleiman Shammas Ali and Roslina Othman
3. COGNITIVE AND BEHAVIORAL APPROACHES IN INFORMATION RETRIEVAL 13 Zalifah Awang Zakaria and Roslina Othman
4. ANOMALOUS STATES OF KNOWLEDE IN INFORMATION RETRIEVAL
5. THE INFLUENCE OF ASK MODEL ON USER-SYSTEM INTERACTION31 Zalifah Awang Zakaria and Roslina Othman
6. UNCERTAINTY AND ITS RELATIONSHIP WITH RELEVANCE37 Zalifah Awang Zakaria and Roslina Othman
7. THE CURRENT TRENDS AND DEVELOPMENTS IN INFORMATION RETRIEVAL 45 Zalifah Awang Zakaria and Roslina Othman
8. NATURAL SYMMETRY BETWEEN QUERIES AND DOCUMENTS51 Suleiman Shammas Ali and Roslina Othman
9. STRENGTHS AND WEAKNESSES OF IR EVALUATION TESTS55 Roslina Othman and Zalifah Awang Zakaria
10. LABORATORY VERSUS OPERATIONAL SYSTEM TEST
11. NON-ENGLISH MONOLINGUAL IR CASES: AN OVERVIEW

12. STEMMING FOR DOCUMENT IN NON-ENGLISH DOCUMENTS73 Roslina Othman and Ouahiba Saoudi
13. STEMMING FOR DOCUMENT IN ENGLISH LANGUAGE
14. ADDAALL STEMMER FOR ARABIC NEWS OF AL-JAZEERA
15. MORPHOLOGICAL ANALYSIS FOR RETRIEVAL OF DOCUMENTS IN ARABIC LANGUAGE99
Roslina Othman and Ouahiba Saoudi
16. <i>QURANIC</i> TEXTS IN MULTI-SCRIPT ENVIRONMENT: AN OVERVIEW TO THE REQUIREMENTS
17. MALAY TRANSLATION OF THE <i>QURANIC</i> TEXTS IN INFORMATION RETRIEVAL
Roslina Othman and Fauziah Abdul Wahid
18. PROCEDURES FOR EVALUATING <i>QURANIC</i> TEXTS IN MULTI-SCRIPT ENVIRONMENT
Roslina Othman and Fauziah Abdul Wahid
19. RETRIEVAL PERFORMANCE OF QURANIC TEXTS IN MULTI-SCRIPT ENVIRONMENT
Roslina Othman and Fauziah Abdul Wahid
20. INDEXING MODELS AND SEARCHING FEATURES: AN OVERVIEW
21. PRECISION-BASED INDEXING

22. ONTOLOGY-BASED INDEXING
23. A REVIEW OF THE PROBABILISTIC INDEXING
24. INTERACTIVE TOPIC DETECTION AND TRACKING
25. RETRIVAL FEATURES OF SCIENCEDIRECT
26. RETRIEVAL FEATURES OF EMERALD
27. RETRIEVAL FEATURES OF EBSCO HOST
28. RETRIEVAL FEATURES OF IEEE XPLORE
29. CLASSIFCATION-BASED NOVELTY SEARCH FOR PATENT APLICATION IN USPTO
30. SEARCHING FOR MALAYSIAN GOVERNMENT DOCUMENTS203 Ruzaimah Mohammed Zain, Wan Ali Wan Mamat and Roslina Othman
31. BORN-DIGITAL MATERIALS: RETRIEVABLE OR IRRETRIEVABLE?209 Nik Roslina Raja Ismail and Roslina Othman
32. CORPUS AND SOURCES: AN OVERVIEW215 Roslina Othman

33. ISSUES OF CORPUS ON SUFISM	221
Muslim Ismail, Murshaidi Hazlin Mohd, Muhammad Arif Osman and Othman	d Roslina
34. Sufism Literature in Online Databases	
35. Common Issues of Islamic Manuscripts Ruzaimah Mohammed Zain, Nik Roslina Raja Ismail, Haniza Adnan a Othman	
36. Possible Corpus for Islamic Manuscripts Ruzaimah Mohammed Zain, Nik Roslina Raja Ismail, Haniza Adnan a Othman	
37. Online Access to Islamic Manuscripts Ruzaimah Mohammed Zain, Nik Roslina Raja Ismail, Haniza Adnan a Othman	

#### 25. RETRIVAL FEATURES OF SCIENCEDIRECT

Nur Leyni Nilam Putri Junurham, Nurul Hasni Abu Hassan and Roslina Othman

#### **ABSTRACT**

This chapter reports on the exploration of the retrieval features of *ScienceDirect*. *ScienceDirect* is the world's largest provider of scientific, technical and medical information and currently offers access to the full text of nearly 1,200 journals. Thus, learning and experience in applying the retrieval features are needed to enable quality access to this huge database. The retrieval features included Boolean operators, proximity, lateral searching, query-by-example, and re-run saved search strategies.

#### 25.1 Introduction

ScienceDirect offers access to journal articles and book chapters published in more than 2,500 peer-reviewed journals and 11,000 books. Currently, this interactive IR system has more than 9.5 million articles/chapters, with growth rate of almost 0.5 million additions per year. The database offers search and retrieval functionality and tools to facilitate research work flow such as access to content at an early publication stage. The database covers subject such as Architecture & Environmental Design, Economics, Engineering, Information & Communication Technology, Language, Medical, and Science.

ScienceDirect is published by Elsevier claimed as the world's largest scientific, technical and medical information provider of over 2,000 journals, books and secondary databases.

ScienceDirect targeted academic and scientific professionals including scientists, university professors, and graduate students. This