Thesis Summary

Thesis Title: Relevance criteria in video leisure interactions

1. Problem statement and motivation

Relevance is a core concept in Information Retrieval. The ultimate goal of all Information retrieval (IR) systems is to retrieve relevant documents in order to satisfy the user needs. Many studies have attempted to understand how real users judge the relevancy of retrieved documents. Among these works, researchers were especially interested in what reasons users give to judge a certain document as relevant or not relevant. In other words, what are the *relevance criteria* that users apply and which information attributes were useful when making relevance judgment decisions.

A core study in relevance criteria literature is the work of Barry & Schamber (1998). In this study, the authors compared the lists of criteria resulted from their two previous researches. The comparison yielded ten criteria in common. The criteria are: depth/scope/specificity, accuracy/validity, clarity, currency, tangibility, quality of sources, accessibility, availability of information / sources of information based on their research, verification, and affectiveness.

Although there is a rich literature that considered different aspects of relevance criteria, there are still some directions that have not been completely investigated. There is a lack of knowledge regarding how users apply relevance criteria in video relevance judgments. Few studies have focused on this issue, such as (Yang 2005), however, these studies did not consider all the different aspects of relevance judgments such as the various factors that might affect user's relevance judgments and they were limited to work-related tasks.

Furthermore, the affordability of technology and the Internet facilitate the use of different information retrieval systems not just for work related tasks but also to use these systems during leisure time. This phenomenon has attracted research community recently and researchers started to introduce leisure concept to information behaviour studies (Hartel 2003; Stebbins 2009; Elsweiler et al. 2011). However, little is known about which relevance criteria are important to users in a leisure context, which might be different from other contexts (e.g. academic and professional). Thus, more work are needed to fill in the gap of knowledge regarding video relevance criteria in leisure context.

The importance of this study lies in its attempt to enrich the current literature by investigating relevance criteria in video leisure interaction. In addition, examination of the various factors (e.g. search experience, topic interest and familiarity) that might affect user relevance judgment and more specifically relevance criteria selection will be presented. By shedding light on this uncovered area of research and by examining the various factors that affect relevance criteria choices, the IR community will gain a deeper understanding of how users make their relevance judgment decisions in leisure context, which might be different from work related context. Furthermore, the findings of this study will have implications on the design of IR systems. Retrieval systems designed for users with leisure needs might be different from those targeting users with work-related needs. In addition, the design of video retrieving systems may also be different from text retrieval systems. The comparisons of relevance criteria mentioned among these different media and situations will guide designers of different IR systems. As leisure users have different needs and motivations, investigating relevance criteria in leisure context will help in designing systems that address their needs.

2. Aim and research questions

The main goal of this study is to investigate the criteria users apply in making relevance judgment decisions when searching videos in a leisure context in order to aid in designing more useful IR systems.

To achieve this aim, this study will attempt to answer the following research questions:

- RQ1: What are the relevance criteria users apply when judging videos in leisure context?
- RQ2: To what extent these criteria match the criteria mentioned in the previous literature of text retrieval and/or work task context?
- RQ3: What are the factors that influence users' relevance judgment and criteria selections?
- RQ4: How the findings influence the design of IR systems?

3. Work Plan and progress to date

Relevance criteria have been previously studied extensively using various methodological frameworks. Quantitative and qualitative data have been collected through different data collection techniques such as interviews, questionnaire, talk aloud protocol, eye-tracking and video recording. The majority of the previous studies were conducted in universities' labs and under the control of the researchers and they were mainly focused on work-related search tasks. However, as the main purpose of this study is to investigate relevance criteria in video leisure interaction, and because leisure is known to be an everyday life activity, an instrument which could collect data in a more natural and realistic way is needed.

In order to answer RQ1 and RQ2, a diary study have been designed and piloted asking participants to record information regarding their video search sessions(using YouTube) for leisure or entertainment. Specifically, participants were asked to record the topic and motivation of their search and their criteria for selecting videos for each search session.

Diaries have been chosen among other data collection techniques applied in the previous literature because it is a natural self-reported instrument which is capable of collecting data in the users' real environments and without the influence of an observer (Elsweiler et al. 2007). Unlike interviews, diaries overcome call backs and memory problems by minimizing the time between recording the event and the event itself. (Corti, 1993).

Based on the results of the diary study, I am planning to conduct another study with the goal of answering the rest of my research questions (RQ3 and RQ4) and to validate the results of the diary study. Attending this workshop, I would like to discuss ways of improving my research and inspire ideas for designing the second study.

References

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CV

PERSONAL DETAILS:

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EDUCATION:

University of Strathclyde – October, 2014 to present
Phd student in Computer and Information Science Department

King Saud University - June, 2012
M.Sc. (Information System)
GPA : 4.68 out of 5

King Saud University - July, 2007
B.Sc. (Information Technology)
GPA : 4.6 out of 5 with Second Class honour

WORK EXPERIENCE

- 2013 Teaching assistance at Information System Department College of computer and information science, King Saud University, Riyadh, Saudi Arabia.
- 2008 –2013 Teaching assistance (King Saud University, E-transactions and communications deanship)
  - Working as trainer for the users of ERP project MADAR.
  - Supervising the application of MADAR systems around the university.
- 2011- Collaborating Teacher assistance at Information technology department-King Saud University.

PROJECT EXPERIENCE:

1. Final Year Project as Part of the M.Sc. Curriculum.
   Project Name: "A Fast Algorithm for XML tree Matching"

   Description: This project aims to propose and implement an efficient tree pattern matching algorithm to find all occurrences of XML query in the XML source. Implemented using Java

2. Final Year Project as Part of the B.Sc. Curriculum.
   Project Name: "Alert Pal"

Description: Web-based application coded using ASP.NET that acts as a mediator to help busy investors by sending alert message (SMS, Email).

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