Research Trends in Social Media Information Retrieval (SMIR): A systematic review

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Research Trends in Social Media Information Retrieval (SMIR): A systematic review

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Abstract— The importance of information retrieval has grown rapidly in align with the fast explosion of social media technology. This paper presents a systematic literature review of research trends in social media information retrieval (SMIR). The aim is to develop a basic searchable literature database related to SMIR. Out of more than 500 papers, only 38 papers met the selection criteria. Identified literatures were read, analysed and group into five main categories of research trends: (i) Collaboration and recommendation; (ii) Identifying, modelling and ranking; (iii) Multimedia data retrieval; (iv) Human-centered retrieval; and (iv) Searching and indexing. Out of five, three categories show steady increment in terms of number of articles published in 2008-2012 with Flickr as most cited and used in the research. The review concludes and discusses ways that future research can benefit from it.

Keywords: Current trends, social networking, social network, literature review.

1. Introduction

The importance of information retrieval has grown rapidly in align with the fast explosion of social media technology. Rich social media information has brought vast opportunities for researchers to improve their techniques and tools. However, there are no or little efforts to systematically review relevant literatures in Social Media Information Retrieval (SMIR). The objective of this paper is to review, analyze and classify existing literature in SMIR. This systematic review investigates research trends and identifies related method, framework and sample of research in this area. More specifically, the following are the three research questions:

(1) What are the top five research areas or categories under SMIR that have been investigated?
(2) What are the major findings of current research trends in SMIR research?
(3) What is the most popular social networking site used in empirical investigation of SMIR research?

This paper is organised as follows. In Section 2 we describe our research method. In Section 3 the results are analyzed and presented. Section 4 discusses the results of this analysis and reviews the research trends. Section 5 concludes the paper and presents future work.

2. Methodology

This section describes the methodology used to carry out this systematic review. First, according to the systematic review guidelines, we carried out a comprehensive literature search for primary studies (Kitchenham, 2004). The aim is to develop a basic searchable literature