

# Chapter 1

## Navigational Searching and User Treatments: Particularity in Web Searching

### ABSTRACT

*In this chapter, the authors presented particularity of web searching in the context of navigational searching based on previous studies. Consequently, they divided this chapter into two parts. The first part of this chapter belongs to earlier works that examined eye-tracking studies to investigate distinctiveness between different searching tasks while the second part belongs to the discussion on the structure and nature of each searching task based on the results of earlier web usage studies.*

### INTRODUCTION

Horizontal search engines are known to answer a user's common query, usually referred to as general Web query. These general queries are distinguished based on their characteristics. To acquire these characteristics, researches are done based on explicit and implicit users' feedback according to well-known search logs such as AltaVista and AOL (American online). In this chapter, we highlighted significant differences of users' treatments toward navigational searching in respect to the other searching tasks.

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## **BACKGROUND**

In short, a navigational searching is where a user targets a specific Web page by his or her navigational query. This specific Web page is usually referred to as *navigational resource* and the act of assigning a navigational query to its relevant navigational resource is called *navigational resource identification*. Based on prior researches, there are distinct differences between navigational searching and other types of searching tasks which can be grouped into 3 different clusters, namely, *query length*, *search session duration* and *search query complexity*.

Web community has studied users' intentions in Web searching (e.g., Jasen & Spink (2005), Broder (2002)), based on the principle of Web usage mining or more specifically, Web query mining. Goal of such study is to acquire relevant information from search transactions to improve the quality of information representation. Consequently, results of these studies are used to classify Web searching tasks into 3 main groups, i.e., *informational*, *navigational* and *transactional* searching. An informational searching is to locate content about a particular topic among one or more Web pages. On the other hand, a navigational searching is where the searcher tries to reach to a specific Web site. This Web site can be that of a person or organization. Lastly, a transactional searching is where searcher may perform some Web-mediated activities to achieve to some product by executing some Web services (Jasen & Spink (2005), Broder (2002)).

## **NAVIGATIONAL WEB SEARCHING AND USER'S PREFERENCE**

### **Eye-Tracking Study and User's Behavior in Web Searching**

Eye-tracking studies can give us a better understanding of how users treat different searching tasks. Google golden triangle (Enquiro 2005) tells us that users read more of higher rank results compared to the lower ones. Study carried out by Marcos, M. C. et al. (2010) revealed that users pay attention to elements of results differently from one searching type to another.

On the other hand, Microsoft studies (Guan, Z., & Cutrell, E. (2007), E. Cutrell, E., & Guan, Z. (2007)) shed light on the significance of navigational

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