

**INTELLIGENT INFORMATION AGENT
FOR NEWS COLLECTION**

A thesis submitted to the Graduate School in partial fulfillment of the requirements
for the degree Master of Science (Intelligent Knowledge Based System),

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By

Sasalak Tongkaw

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ABSTRACT (BAHASA MELAYU)

Dalam era teknologi maklumat, banyak sumber maklumat boleh didapati dalam Internet. Bilangan berita yang terdapat dalam Internet juga bertambah. Namun begitu adalah sukar bagi pengguna mendapat berita yang tepat seperti yang dikehendakinya. Sering kali enjin pencari memaparkan terlalu banyak, terlalu sedikit atau tiada langsung laman web yang berkaitan dengan apa yang dicari oleh pengguna. Oleh itu, projek ini dilaksanakan untuk mengatasi kelemahan enjin pencari yang sedia ada dengan membangunkan perisian agen bagi mengumpul dan menganalisa berita dalam Internet. Kajian ini memfokus kepada penggunaan agen pintar yang boleh mengumpul, menapis dan menilai berita berdasarkan kata kunci yang diberi oleh pengguna dan menyimpan maklumat berita dalam struktur ontologi. Spesifikasi agen pintar dibina menggunakan kaedah *Unified Modeling Language (UML)* dan ditulis dalam bahasa pengaturcaraan *Java*. *Protégé-2000* digunakan untuk membina struktur berita ontologi.

ABSTRACT (ENGLISH)

In the Information Technology (IT) era we are living, a growing number of information sources are available online. News that is available on the World Wide Web is also increasing. It is often not easy to search for a particular news that one needs. Most of the times, the search engine presents results with too many web pages to visit and very few, if at all, are relevant to what is actually needed. Therefore, we aim to solve this problem by developing a powerful software agent to gather and analyze news information. This project focuses on an Intelligent Agent (IA), which is able to gather news information, filter, score and rate according to the keywords entered by users and store it into ontology structure. This IA is specified using the Unified Modeling Language (UML) and written in Java. Protégé-2000 was used to create the news ontology structure.

Keywords: Intelligent Agent, Ontology, Information Gathering

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Sasalak Tongkaw
Sekolah Siswazah
Universiti Utara Malaysia
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CHAPTER 1

INTRODUCTION

In the Information Technology era we are living in nowadays, it is undeniable that to be successful in most occupations, ones must stay on top of current information. One of the best ways to obtain updated information is to find a way to receive news as much as possible. News that is available on the World Wide Web is increasing importance and popularity because of many reasons. First, it is updated more frequently than many other news media such as the daily newspapers. Thus, information on the Internet is often the most current. An easy example of this is the sport news, which is reported minute-by-minute. Second, users that have access to the Internet, can receive news through this medium at a very low cost and usually for free. Third, unlike other media such as television, radio, or newspaper, the information is accessible at all times on the Internet. Fourth, news on the World Wide Web comes in a wider variety than in other media. One can find details of news that particularly serve their needs, which might not be publicised much in other media. Furthermore, specific news can often be searched without having to go through each news one by one, which would require countless amount of time. There is so much information flooding on the Internet each day, and is still increasing rapidly, it is often not easy to search for that particular news that one needs. The traditional way of searching is to enter queries into a search engine.

Most of the time, the search presents result with too many web pages to visit and very few, if at all, are relevant to what is actually needed. Thus, this kind of search is neither efficient, nor practical for most people. Therefore, we aim to solve this problem by developing a more powerful approach to search and retrieve news information. This particular application allows users to retrieve news faster and more efficiently.

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