

ONTOLOGY APPLICATION FOR THE HAJJ

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By

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ABSTRACT

In this our dynamic world, knowledge is related to data and information that already exist, and knowledge management can be shared and interlinked. In a broader scope, it can be used to structure ontology. The use of ontology on knowledge helps users to understand the structure easier. The important matter in ontology is represented by showing the relations among classes in domain. When the relation is already identified, then the structure of ontology for the knowledge domain (i.e. Al-Hajj) can be modelled. Protégé is used in this work to model the structure of ontology. This structure of ontology will assists in sharing knowledge about Al-Hajj.

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LIST OF ABBREVIATIONS

CODE	Conceptually Oriented Design Environment
JDK	Java Development Kit
API	Application Programming Interface
DOGMA	Developing Ontology-Grounded Methods and Applications
RAD	Rapid Application Development
UML	Unified Modelling Language
GUI	Graphic User Interface

CHAPTER 1

INTRODUCTION

1.1 Preface

In our dynamic world, organizations need knowledge management tools that enable users to better understand each other's changing contextual knowledge, that foster effective and efficient collaboration while capturing, representing and interpreting the knowledge resources in their domain and business context (Wang et al, 2003).

Ontology has been considered as an adequate methodology to support a variety of activities of knowledge management, including knowledge retrieval, store, sharing, and dissemination (Pundt et al, 1999). The ontology's applications have managed to expand to various domains areas such as e-commerce, e-learning, e-marketing and knowledge management system (Sridharan et al, 2004). It refers to shared vocabulary for facilitating knowledge, communication, storing, searching and sharing in knowledge management systems. The ontology methodology is used as a guideline for creating ontologies based on a declarative knowledge representation system. The system is deployed on the Protégé ontology editor tool 1998. In ontology, users may create separating classes and instances for maintenance, modularity and scalability.

Similarly, ontology can be applied into religion spectrum, in a variety of ways, in Islamic religion for instance, it can be applied to Al-Hajj, which has been clearly specified in Al-Quran. The Al-Quran provides clear explanation about human and nature, for instance, it has a very essential knowledge to be shared by all human beings. As Khan (2005) defined, Al-Quran is the Holy Scripture of the Muslims and was revealed precisely by Allah to the Prophet Muhammad through Jibreel. It provides the basic codes of conduct in all spheres of life. Ontology is the way to share knowledge for the performance of hajj as specified in the Al-Quran. The Al-Quran in the form of conceptual model helps us to find suitable verses related to our problems on Hajj. Conceptual model is used to map text representation onto ontology concept,

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only

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