

# The Study of Topic Maps Based on Ontology

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## ABSTRACT

This study combines Topic Maps and 分歧的問題。本研究遵循PASSI方法論進行多代理人系統的分析與設計，多代理人系統採用JADE平台進行開發，占星學主題地圖使用TM4L (Topic Multi-Agent System for backup mechanism of Web Services. If the service is broken, agents will select the service with highest evaluation value from candidate service list, translate arguments, and use the alternative service. If alternative service have semantic problem, we translate synonym the by us-ing astrology Topic Maps, and use it to solve the problem of the semantic polysemy. This study models the system analysis and design of Multi-Agent System by following PASSI methodology Multi-Agent System develops by using JADE platform, and astrology Topic Maps create by Topic Maps for e-Learning. We implement the Web Service of daily horoscope, and design experiment to improve the feasibility of service backup mechanism. Finally through the result of the experiment, we evaluate the system performance. The concrete contributions of proposed system are as follows: (1)Service backup mechanism is helpful for the enterprise using or developing the Web Service, especially the service composes other service, this will increase the of the Web Services stability. (2)Astrology Topic Map can solve the problem of when communication between related service. (3)We develop Web Service of daily horoscope according to service backup mechanism, except for containing stability, and free for system developer.

Keywords : Service Oriented Architecture, Topic Maps, Multi-Agent System

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