

One of the most important applications of agents is information retrieval. This has

In the sub-projects to be described separately, we plan to study the architecture, language, logic, reasoning, design, and implementation issues of software agents. We will also build a digital library, which is to be used as the backbone for information retrieval.

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(1) •  $\mathfrak{g} \cong \mathbb{R} \vee (\text{mission-oriented})$

(2)  $\otimes \leq \otimes$  (adaptive & evolutionary)

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[1] Y. Shoham, Agent-Oriented Programming, AI, 60(1):51-92, 1993.

[2] C. J. Liao , On the possibility theory-based semantics for logics of preference, International Journal of Approximate Reasoning , 20(2), 173-190,1999.

[3] C. J. Liao, A logic for reasoning about action, preference, and commitment, ECAI'98, pp.552-556, 1998.

[4] C. J. Liao, A semantics for logics of preference based on possibility theory, Proc. of 7th International Fuzzy Systems Association World Congress, Vol I, pp.243-248,1997.

[5] C. J. Liao, A logic for reasoning about fuzzy truth values, IEEE-FUZZ'98, pp.903-908, 1998.

[6] C. J. Liao, Possibilistic residuated implication logics with applications, International Journal of Uncertainty, Fuzziness and Knowledge-based Systems, 6(4), 365-385,1998.

[7] C. J. Liao, On rough terminological logics, 4th International Workshop on Rough Sets, Fuzzy Sets, and Machine Discovery, pp. 47-54,1996

[8] C. J. Liao , On rough quantifiers, Cybenetics and Systems'98, pp.175-180,1998.

[9] C. J. Liao, Modal reasoning and rough set theory, Proc. of 7th International Conference on Artificial Intelligence: Methodology, Systems, and Applications, pp. 317-330, LNAI 1480, 1998.

[10] C. J. Liao and D.R. Liu, A logical approach to fuzzy data analysis, Proc. of 3rd European Conference on Principles and Practice of Knowledge Discovery in Databases, 1999.

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[18] Hsu, J. Y. J and Yih, W.-T. Template-based information mining from HTML documents. In Proceedings of AAAI-97, pages 256-262, 1997.

[19] Hsu,J. Y. J. A multi-agent framework for intranet service integration. In Toru Ishida, editor, Proceedings of Pacific Rim International Workshop on Multi-Agents, pages 26-37, November 1998.

[20] Cowie, J. and Lehnert, W. Information extraction. Communications of the ACM, 39 ° J ° 80-91, 1996.

[21] Hao, X., Wang, J. T. L., and Ng, P. A. Information extraction from the structured part of office documents. Information Sciences, 91:245-274, 1996

[22] Kushmerick, N., Weld, D., and Doorenbos, R. Wrapper induction for information extraction. In Proceedings of Fifteenth International Joint Conference on Artificial Intelligence ° JCAI-97 ° , pages 729-735, 1997.

[23] Bradshaw, J. M. editor. Software Agents. AAAI/MIT Press, Menlo Park, CA, 1997.

[24] Sycara, K. P. Multiagent systems. AI Magazine, 19(2): 79-92,1998.

