

# **Logics for Information Systems**

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## **Abstract**

Information systems, as considered by Pawlak, constitute a fundamental part of the backdrop for Rough Set Theory. The basic definition has undergone modifications over the years to give, e.g. dynamic information systems, knowledge-representation (KR-) systems (also termed incomplete or non-deterministic), and multiple-source KR-systems. Logics with semantics based on these (or “equivalent”) structures have been defined, and we present a brief survey. We consider “partial knowledge” information systems (PKIS) and present a logic, the models of which are based on structures equivalent to PKIS. Finally, we propose a formalization of the notion of “information”, that may be used for updates of these information systems.