



DATA AND KNOWLEDGE MANAGEMENT

Nature

UE

RESPONSABLES

Zoltan Miklos

OBJECTIFS

While relational databases continue to play an important role for managing data, modern application contexts often require attention to specific aspects of data and its usage. Applications use data with respect to ontologies (that represent particular domains of knowledge) and require reasoning services. Data might be uncertain or of poor quality and applications need to cope with these issues. For certain applications it is more important why a particular tuple is (or is not) in the query result than the query result itself. Again other applications pose particular requirements w.r.t. to the modalities of access (for example natural language queries). Large-scale data requires again other data management services. The course gives an overview of modern data and knowledge management techniques and presents some of the recent research questions in these domains.

KEYWORDS

Data models, Semantic Web, Uncertain data, data quality, data provenance. Querying data and knowledge bases, other modalities of access (natural language, faceted search), large graphs, knowledge maintenance

PREREQUISITES

Bases de données

CONTENTS

Part 1: Data models : relational databases, RDF, formal models ontologies, Semantic Web, modelling uncertain data, data quality, data provenance

Part 2: Querying data and knowledge bases, query evaluation techniques, Other modalities of access (natural language, faceted search) Large graphs, models and data access for large-scale data, knowledge maintenance

LEARNING OUTCOMES

Data models, Semantic Web, Uncertain data, data quality, data provenance. Querying data and knowledge bases, other modalities of access (natural language, faceted search), large graphs, knowledge maintenance

APPARTIENT À

Mise à jour le 17 juillet 2017

CONTACT(S)

[Département Informatique et télécommunications](#)

École normale supérieure de Rennes Campus de Ker Lann Avenue Robert Schuman
35170 BRUZ

Tél. : 02 99 05 52 43

[E-mail](#)

[Site Internet](#)