TUTORIAL

Cooperative Access to Data and Knowledge Bases

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In many applications users need a more sophisticated access than the direct answer to a query. We say the access to a Data and Knowledge Base is cooperative if the system offers new functionalities, with respect to question answering, and/or if the system can adapt the answers to each particular user, or class of users.

New functionalities involve, among others:

- extended answers containing additional facts neighbour to the direct answer, or relevant to the query,

- explanations, which are formulas giving the reason why an answer is empty or giving properties held by every tuple in the direct answer,

- intentional answers which are formulas defining the answer independently of a particular state of the Database,

- conditional answers providing, in the context of incomplete information, the conditions which guarantee a tuple is in the answer.

The tutorial presents these new functionalites using simple examples, and gives more general definitions based on Logic. The main ideas of methods used to implement these functionalities are presented, and more details are given about an existing prototype computing extended answers.