

1996 Paper 7 Question 6

Artificial Intelligence

Devise a semantic network capable of representing propositions of the following kinds:

John loves Mary more than she loves him.

John thinks that Mary does not love him.

John thinks that Mary does not love him, but she does love him.

It will not be necessary for you to address linguistic issues such as pronoun resolution. [6 marks]

Identify some ontological and epistemological commitments of your representation. [4 marks]

Demonstrate some inferences that can be made from such a network. [4 marks]

How can you distinguish between statements that are represented by the network and statements that are implied by the network? [3 marks]

Explain how your network can be represented by data structures. [3 marks]