Unit 10 - What is an Ontology?

Ontologies are formal specifications common on the World-Wide Web. They classify websites based on their functionality (Noy and McGuinness, n.d). It is used as a common vocabulary able to transfer knowledge between different professionals. Nowadays, many authorities develop standard ontologies that allow them to share and annotate knowledge in their fields (Noy and McGuinness, n.d). Apart from distributing information among different fields, ontologies are also used to distinguish and analyse domain knowledge from operational knowledge (Noy and McGuinness, n.d).

Ontologies consist of classes, slots, facets (or restrictions on slots), and instances (Noy and McGuinness, n.d).

- Classes describe the concepts of a domain. Most ontologies use classes to represent a wide category of domains. For example, a class "shopping" would include all e-commerce domains.
- Slots represent the properties of classes and instances. For example, the slots of the shopping class would include "clothes, technology, services, etc."

To sum up, a completed ontology (also called knowledge base) is a representation of a domain's components "translated" in a common vocabulary comprehensible from different professions. This allows for an easy knowledge transfer.

References:

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