HowTo.wiki

This wiki page provides basic information on how to work with Decision Ontology. You may be also interested in analyzing an example OWL file and associated tutorial.

If you have any questions or comments or need help in using this ontology, send an email to: **piotrnowara(at)gmail.com**

Ontology overwiew

1. Decision-making is initiated by some underlying problem that can be represented in form of a **question**.
2. **Decision-making is a process** that can result in some decision and **decision is a situation** of indicating one of the considered options. Decision Ontology provides means for precise distinguishing and distinct treatment of these two aspects.
3. **Option** is a **considered situation** of choosing some specific solution.
4. Options can have associated **criteria** that is **requirements**, **recommendation** (or other **normative** entities) that should be applied to them.

How to browse Decision Ontology?

You can use the Protégé, which is a free, open-source OWL editor and application framework. After loading an OWL file type a word or phrase in the search box and look for decision-making related concepts. Below is a short video showing how it can be done in Protégé 4:

http://www.youtube.com/watch?feature=player_embedded&v=dbpQodni7F4' target='_blank'>http://img.youtube.com/vi/dbpQodni7F4/0.jpg' width='425' height=344 />

How to describe a decision-making?

- Add a subclass of **Decision_making** class.
- Consider adding the question representing the problem initiating the given decision-making process. Use **is_initiated_by** property to indicate a subclass (or member) of the **Question** class.
- Add options by using **is_consideration_of** property to indicate a subclass (or member) of **Option** class. See below for a details on describing options and their associated criteria.
- Add additional questions that have to be answered during the decision-making process. Use **initiates** property to indicate a subclass (or member) of the **Question** class.
- Add the outcome of the given decision-making process (this step can be omitted when describing decision-making patterns on TBox level). Use **has_result** property to indicate decisions that may result from considered options of a given decision-making process or to indicate a member of a **Decision** class in the case of describing a concrete process.

How to describe an option?

- Describe what exactly does a given option represent. Use **involves_choosing** property to indicate appropriate class or individual.
- Add options criteria. Use **has_criterion** property to indicate appropriate requirement, recommendation or other subclass or member of **Normative_value** class.

How to describe options criteria?

- Describe what given criterion applies to. Use **has_validity_for** property to indicate appropriate class or individual.
- Describe how a criterion can be satisfied (or not satisfied).
  Use **is_satisfied_by** and/or **is_violated_by** to indicate appropriate class or individual.

How to describe a norm (requirement, recommendation etc.) related to a decision-making?

- Indicate what kind of decision-making does a given norm apply to. Use **has_validity_for** to indicate appropriate subclass or member of **Decision_making** class.
- Describe how a given decision-making type should be conducted (create a decision-making pattern). Use **is_satisfied_by** and/or **is_violated_by** to indicate appropriate subclass or member of **Decision_making** class.

How to describe a decision?

- Add option which represents the chosen solution. Use **indicates** property to specify a subclass or member of **Option** class
- Indicate decision making process which a given decision is result of. Use **is_result_of** property to indicate appropriate subclass or member of **Decision_making** class.