

# **Quality and Gatekeeping**

Fabian Neuhaus & Barry Smith

# Two different topics

Gatekeeping: Minimal requirements that have to be met.

Quality: How do we recognize and encourage high quality ontologies?

# Gatekeeping Criteria I

1. Openness (details later).
2. Expressed in a formal language with a well-defined syntax.
3. Authors provide the required metadata.



# Gatekeeping Criteria II

4. Clearly specified and delineated scope.

5. Successive versions are clearly identified.

6. The ontology is adequately labeled.



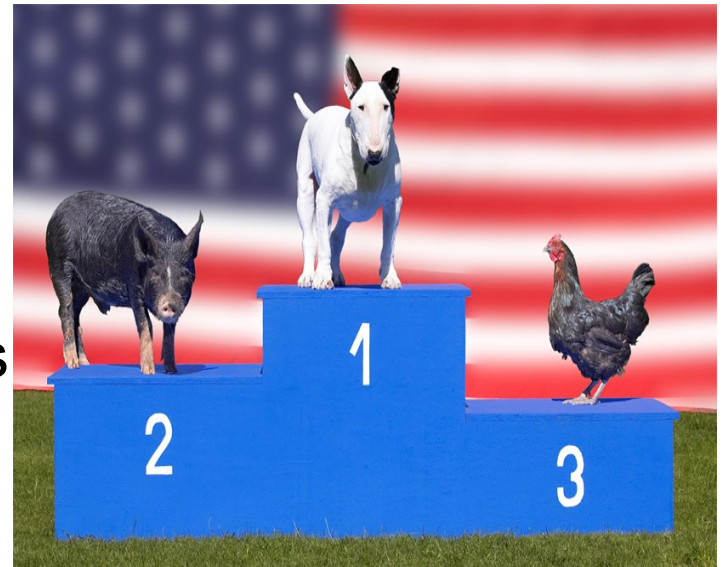
# Quality – The situation in fact

Gatekeeping criteria do not enforce high quality.

OOR needs to enable evaluation of ontologies.

Different perspectives on ontologies (pieces of software, pictures of reality, standards).

No consensus on evaluation methods.



# Two strategies for ontology evaluation



Market driven



Review based

# Quality – The proposal

- Distributed governance model
- Subcommunities provide stewardship for their respective fields by evaluating the available ontologies and by distinguishing high-quality ontologies according to appropriate standards.

# Discussion

- Questions:

- What does “open” mean in “OOR”?
- Do we need a quality gatekeeping criterion?



# Openness Position I

- Based on open standards.
- Cooperative, transparent process.
- Everybody can participate.
- Ontology is accessible to everybody.
- Open source, e.g. Creative Commons Attribution License

# Openness Position II

Openness should be encouraged but not required.

The OOR should be open for ontologies that are not open in all aspects mentioned above.

Metadata can be used to indicate which openness criteria are fulfilled.

# Discussion

- Questions:

- What does “open” mean in “OOR”?
- Do we need a quality gatekeeping criterion?

# Position I: No OOR wide quality control

Ontologies are rejected or excluded if they do not fulfill the gateway criteria.

Ontologies can be deleted for other reasons (e.g. copyright violation) or they can be retired (e.g. the ontology is outdated and no longer maintained).

However, poor quality is not itself a reason to exclude an ontology from the OOR.

# **Position II: Gatekeeping plus quality assurance**

**Ontologies will be evaluated according to whether they meet the claims formulated by their authors in the submitted metadata, and rejected if they do not meet these claims**

**Ontologies will be evaluated in light of their degree of overlap with ontologies already included within the repository. If they overlap considerably with an existing ontology, additional metadata will be required to justify their inclusion**

# Resources

**Much more information on ontology evaluation is available on:**

<http://sites.google.com/e/cme.nist.gov/workshop-on-ontology-evaluation>

**Interoperability without integration through orthogonal ontology modules:**

[www.obofoundry.org](http://www.obofoundry.org)

# **Instances vs Types**

**Envo and GAZ**