

BUILDING ONTOLOGIES WITH BASIC FORMAL ONTOLOGY

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In the era of “big data,” science is increasingly information driven, and the potential for computers to store, manage, and integrate massive amounts of data has given rise to new disciplinary fields such as biomedical informatics. Applied ontology offers a strategy for organizing scientific information in computer-tractable form, drawing on concepts not only from computer and information science but also from linguistics, logic, and philosophy. This book provides an introduction to the field of applied ontology that is of particular relevance to biomedicine, covering theoretical components of ontologies, best practices for ontology design, and examples of biomedical ontologies in use.

After defining an ontology as a representation of the types of entities in a given domain, the book distinguishes between different kinds of ontologies and taxonomies, and shows how applied ontology draws on more traditional ideas from metaphysics. It presents the core features of the Basic Formal Ontology (BFO) now used by over 100 ontology projects throughout the world, and offers examples of domain ontologies that utilize BFO. The book also describes the Web Ontology Language (OWL), a common framework for Semantic Web technologies. Throughout, the book provides concrete recommendations for the design and construction of domain ontologies.

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For further details see <http://ontology.buffalo.edu/BOBFO>

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