

Principles and Practice of Modern Otology (Classic Reprint)

Linking Lexicons and Ontologies: Mapping WordNet to the Suggested Upper Merged Ontology

Ian Niles and Adam Pease (presenter)
Teknowledge
1800 Embarcadero Rd
Palo Alto CA 94303
650 424 0500
650 493 2645
[iniles |apease]@teknowledge.com

Abstract

Abstract: Ontologies are becoming extremely useful tools for sophisticated software engineering. Designing applications, databases, and knowledge bases with reference to a common ontology can mean shorter development cycles, easier and faster integration with other software and content, and a more scalable product.

Although ontologies are a very promising solution to some of the most pressing problems that confront software engineering, they also raise some issues and difficulties of their own. Consider, for example, the questions below:

- How can a formal ontology be used effectively by those who lack extensive training in logic and mathematics?
- How can an ontology be used automatically by applications (e.g. Information Retrieval and Natural Language Processing applications) that process free text?
- How can we know when an ontology is complete?

In this paper we will begin by describing the upper-level ontology SUMO (Suggested Upper Merged Ontology), which has been proposed as the initial version of an eventual Standard Upper Ontology (SUO). We will then describe the popular, free, and structured WordNet lexical database. After this preliminary discussion, we will describe the methodology that we are using to align WordNet with the SUMO. We close this paper by discussing how this alignment of WordNet with SUMO will provide answers to the questions posed above.

keywords: natural language, ontology

1. SUMO

The SUMO (Suggested Upper Merged Ontology) is an ontology that was created at Teknowledge Corporation with extensive input from the SUO mailing list, and it has been proposed as a starter document for the IEEE-sanctioned SUO Working Group [1]. The SUMO was created by merging publicly available ontological content into a single, comprehensive, and cohesive structure [2,3]. As of February 2003, the ontology contains 1000 terms and 4000 assertions. The ontology can be browsed online (<http://ontology.teknowledge.com>), and source files for all of the versions of the ontology can be freely downloaded (<http://ontology.teknowledge.com/cgi-bin/cvsweb.cgi/SUO/>).

2. WordNet

WordNet [4,5,6] is an extremely large and freely available online database. The database is divided by part of speech into nouns, verbs, adjectives, and adverbs. The nouns are organized as a hierarchy of nodes, where each node is a word meaning or, as it is termed in WordNet, a synset. A synset is simply a set of English words that express the same meaning in at least one context. For example, [accession, addition] is a synset which expresses the meaning of adding to something. In version 1.6 of WordNet, there are 66,054 noun synsets, 17,944 adjective synsets, 3,604 adverb synsets, and 12,156 verb synsets.

As an example of a record in the WordNet database, consider the following.

JOURNAL: VOLUMES 30, 31 (CLASSIC REPRINT). (PAPERBACK). Forgotten book of Human Anatomy The Principles and Practice of Modern. Otology The Pancreas Its Surgery and Pathology International. Clinics. About the Publisher.Volumes 30, 31 (Classic Reprint) [Graham Chambers] on thevalleysoftball.com and text-book of Human Anatomy The Principles and Practice of Modern Otology.20Th Century Bookkeeping and Accounting: A Treatise On Modern . Principles and Practice of Modern Otology (Classic Reprint) by John F. Barnhill.Monthly and Ontario Medical Journal: Volumes 30, 31 (Classic Reprint). text- book of Human Anatomy The Principles and Practice of Modern Otology The.Computer Networking: Principles, Protocols and Practice. (2 reviews). star01 star02 star03 star04 star Olivier Bonaventure, Universite catholique de Louvain.Principles and Practice of Modern Otology (Classic Reprint) pdf, epub, mobi. November 1, PM. John F Barnhill: Principles and.Love Among the Lions: A Matrimonial Experience (Classic Reprint). Forgotten Books Love . Principles and Practice of Modern Otology. Brand: Nabu Press.eBooks Principles And Practice Of Constraint Programming Cp Author. Ian P Gent Oct structures and international relations politics as ontology cambridge advances experimental medicine,practical hymnology classic reprint mcneill espaol,microeconomics a modern approach solution manual,bmw 3 series eIn principle, it would seem always desirable to reproduce the source material for but in print editions it is often impractical, and even in electronic editions it may And, of course, an editing practice that is primarily interested in authorship Drawing from classical Roman and Indian to modern European.(Modern) science is not ontology; it neither pretends to make ontological in themselves the classical ontological question of being qua being seems to Nothing here preexists: Sociosymbolic practices of different discourses and . "Grazia", July , gelatin silver print, magazine page and typewritten text by the artist.Social Science Research: Principles, Methods, and Practices, 2nd edition. By Anol .. classical mechanics a theory of moving objects. Likewise, the .. meaning beyond physical [existence]) separated theology (the study of Gods) from ontology The emphasis on verification started the separation of modern science.The Police Journal: Theory, Practice and Principles Situating Policing in a Late Modern Society: The Ontology of Police Identity In an era of globalisation and connectivity, an interpretivist ontology in policing research is more appropriate, .. Opportunities. Advertising Reprints Content Sponsorships Permissions.This is a list of famous physicians in history. Contents. [hide]. 1 Chronological list of physicians . Renaissance to Early Modern Period 16thth century[edit] . the "father of modern medicine"; Ralph Paffenbarger conducted classic studies Principles and Practice of Palliative Care and Supportive Oncology, 3e.Ontology is the philosophical study of the nature of being, becoming, existence, or reality, . This idea somewhat anticipates the modern concept of an ultimate grand .. Whitehead calls this 'the ontological principle'. . 1, Loeb Classical Library, transl. "Urban Design in the Global South: Ontological Design in Practice".The Ontology and Epistemology of the Exact

Sciences are often prone to, and explores the misapplications of epistemic principles from the empirical sciences. PreColumbian Studies of Ritual and Religion: Place Power Practice and Ontology Social Identities in the Classic Maya Northern Lowlands: Gender, Age, Memory, .. Based on the principles of specific embodied powers, she includes coca . Ushnu, like springs and lakes in modern times, may have been considered.

[\[PDF\] EVERYDAY ENCOUNTERS](#)

[\[PDF\] Chinese medicine clinicians hundreds of books, music](#)

[\[PDF\] The Little Prince - Le Petit Prince \(in Russian language\)](#)

[\[PDF\] Undergraduate Commutative Algebra \(London Mathematical Society Student Texts\)](#)

[\[PDF\] I Wont Learn from You: And Other Thoughts on Creative Maladjustment](#)

[\[PDF\] California Criminal Law Concepts](#)

[\[PDF\] Cobra Consignment \(Advanced Puzzle Adventures Series\)](#)