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Coladangelo, L. P. 2020. “Thesaurus and Ontology Construction for Contra Dance: Knowledge Organization of a North American Folk Dance Domain.” *Knowledge Organization* 47(7): 523-542. 87 references. DOI:10.5771/0943-7444-2020-7-523.

**Abstract:** This case study aims to preserve and disseminate cultural heritage information about the North American community folk dance tradition of contra dance through development of a thesaurus of choreographic terms and a domain ontology. A survey of dance resources was conducted, reviewing historic and modern examples of contra dance choreography notation and instructions, records of dance events, and recordings of dance performances. Domain and content analysis were performed on the resources to collect and organize concepts and themes regarding choreographic components and their relationships, the structure and function of cultural works, their creative expressions, and the evidence of those expressions in documents and recordings. Vocabulary used in the description of contra dance choreography was identified, classified, and notated to build a thesaurus, which was used as the basis of a domain ontology. Ontology building methodology and existing conceptual models for cultural heritage domains guided the ontology development and revision phases. The study also seeks to safeguard an intangible cultural heritage by applying knowledge organization and semantic approaches to folk dance in order to model such challenges as multiple, simultaneous modes of communication and forms of representation, modular conceptual components, descriptive sequences, differing levels of structured information, and complex cultural networks found at various levels of domain discourse.

Graf, Ann M. 2020. “Domain Analysis Applied to Online Graffiti Art Image Galleries to Reveal Knowledge Organization Structures Used Within an Outsider Art Community.” *Knowledge Organization* 47(7): 543-557. 34 references. DOI:10.5771/0943-7444-2020-7-543.

**Abstract:** Domain analysis is useful for examination of individual spheres of intellectual activity, both academic and otherwise, and has been used in the knowledge organization (KO) literature to explore specific communities and uses, including web pornography (Beaudoin and Ménard 2015), virtual online worlds (Sköld, Olle 2015), gourmet cooking (Hartel 2010), healthy eating (McTavish

2015), art studies (Ørom 2003), the *Knowledge Organization* journal (Guimarães et al. 2013), and domain analysis itself (Smiraglia 2015). The results of domain analyses are useful for the development of controlled vocabularies, taxonomies, ontologies, metadata schemas, and other systems for the documentation, description, and discovery of resources, as well as for knowledge discovery in general (Smiraglia 2015; Hjørland 2017). This research describes a methodology for the elucidation of knowledge organization systems (KOS) currently in use on image websites that document graffiti, graffiti art, and street art around the world.

Smiraglia, Richard P., Joshua Henry, Elizabeth Milonas, Chris Marchese and Sergey Zhrebchevsky. 2020. “A Formal Taxonomy of Knowledge Organization: Meta-Analysis and Facet Analysis.” *Knowledge Organization* 47(7): 558-573. 37 references. DOI:10.5771/0943-7444-2020-7-558.

**Abstract:** Nearly fifty years after the incorporation of the International Society for Knowledge Organization and the introduction of its formal scientific journal *Knowledge Organization*, a comprehensive encyclopedia of the domain appeared. The practice of domain analysis for knowledge organization, twenty years after its introduction as a core methodology, has created the largest corpus of theoretical knowledge in the domain analysis of knowledge organization itself. A substantial body of research data, therefore, is available in the corpus of articles and conference papers reporting on the epistemological and ontological pillars of the science of knowledge organization. This paper is a report on the evolution of a formal taxonomy of knowledge organization, which is a product of an exhaustive meta-analysis of the KO domain. Our team compiled the corpus of twenty-nine formal published analyses together with key formative historical documents. We then analyzed the corpus thematically, bibliographically, and using co-word analysis to extract key concepts and the underlying faceted conceptual infrastructure. The taxonomy itself is faceted and is linked where possible to published definitions in the KO literature and as well as to the online *ISKO Encyclopedia of Knowledge Organization*. A dynamic project, the taxonomy will be maintained as linked open data and will grow as emergent research contributes new concepts or generates new facets.

Balaji, B. Preedip and M. Dhananjaya. 2020. "Towards a Model of Urban Studies Classification." *Knowledge Organization* 47(7): 574-581. 38 references. DOI:10.5771/0943-7444-2020-7-574.

**Abstract:** Evolution of cities is a subject of research for over a hundred years in the organization of urban knowledge systems. Locating five key methodological approaches used by urban scholars and practitioners, this paper demonstrates different relationships between urban studies and classification. Five significant themes form the background of urban studies literature. The first theme sources and literature explore organizing urban materials into sources and literature with a unique dimension of spatiality. The second theme discusses three important facets: scale as a geographic unit of analysis and space as an abstract entity and system as a set of interdependent parts of urban places. The third theme, known as "other" urban, argued for the poor treatment of global south and how it builds inclusivity. The fourth theme, classification and retrieval, investigates the relationship between urban materials and user needs. The last theme, classification schemes, highlights subject treatment of urban in the existing library classification schemes. This paper concludes that the five themes discussed point to a model of urban studies classification. However, this model is not just concerned with urban methods, facets and formats, but explores how each theme interconnects with various sets of people—urbanists, practitioners and librarians—and through studying these actors, established boundaries of urban theories, urban librarianship and knowledge organization are crossed.

Pinto, Jaime A. and Maurício B. Almeida. 2020. "An applied ontology-Oriented Study Case to Distinguish Public and Private Institutions Through Their Documents." *Knowledge Organization* 47(7): 582-591. 34 references. DOI:10.5771/0943-7444-2020-7-582.

**Abstract:** The institutions we create shape many of the activities we engage insofar as they are pervasive entities in our society. In an era full of new technologies, including the semantic web, there is a movement toward sound conceptual modeling for socio-technical solutions applied to government institutions. To develop these complex solutions, one needs to deepen the ontological status of entities in the institutional domain, because literature is full of ambiguous and ad-hoc hypotheses about distinctions between public and private corporations. We believe we can find better explanations for such distinctions in the interdisciplinary field of library and information science. Within an ongoing semantic web project, we focus on a study case of official documents. First, we analyze theories about public and private corporations, seeking a reliable on-

‘tological distinction between them; then, by focusing on documents produced by each type of corporation, we hope to provide a well-founded analysis. Second, we adopt the aforementioned theories and the new analysis as recommendations for the improvement for the access and understanding of public documents, through appropriate classification of them within government information systems. This project, ultimately, aims to maximize the transparency of public government documents by favoring retrieval and comprehension by a society with plenty of automated information systems.

Lima, Gercina Angela de, Maria Luiza de Almeida Campos and Patricia Lopes Ferreira Franca. 2020. "Principles for the Development of Domain Conceptual Models for Knowledge Organization Systems: An Analysis of Methodologies for Developing Learning Paths in the Field of Corporate Education." *Knowledge Organization* 47(7): 592-603. 41 references. DOI:10.5771/0943-7444-2020-7-592.

**Abstract:** This article presents a set of principles for knowledge modeling in knowledge organization systems in specific domains. It discusses the representational problem, comparing the abstraction mechanisms present in the theories related to representation in concept systems, taken from foundational authors of information science, computer science, and terminology approaches. Parallel to this context, several representational possibilities arise to assist the modeler in the activity of elaborating models of representation. It describes the application of theoretical and methodological principles when organizing, representing, and managing navigation on learning paths in the corporate education field. As a concept proof, it exposes a conceptual model of learning paths and discusses a literature review on this subject to verify to what extent these principles are being applied. It concludes that we can consider the principles discussed in this study as relevant, since they expand the modelers' freedom, not making him hostage to a specific model.

Wang, Xiaoguang, Wanli Chang and Xu Tan. 2020. "Representing and Linking Dunhuang Cultural Heritage Information Resources Using Knowledge Graph." *Knowledge Organization* 47(7): 604-615. 19 references. DOI:10.5771/0943-7444-2020-7-604.

**Abstract:** This study employs a knowledge graph approach to realize the representation and association of information resources,

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# KNOWLEDGE ORGANIZATION

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promote the research, teaching, and dissemination of Dunhuang cultural heritage (CH). The Dunhuang Mogao Grottoes is a UNESCO world CH site, and digitization of Dunhuang CH has produced a large amount of information resources. However, these digitized resources continue to lack the systematic granular semantic representation required to correlate Dunhuang cultural heritage information (CHI) in order to facilitate efficient research and appreciation. To respond to this need, new approaches for representing CHI are being developed. This study identifies five fac-

ets and their semantic relationship to Dunhuang CH, constructs an ontology model to regulate the entities, attributes, and relationships of Dunhuang CH knowledge, and subsequently processes the resulting data using various techniques (such as semantic annotation and entity association) to facilitate rendering the data in a knowledge graph construction. Finally, we constructed a DH-oriented knowledge graph service platform in order to provide a user friendly visual display and semantic retrieval service.