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Smiraglia, Richard P. 2020. "Referencing as Evidentiary: An Editorial." *Knowledge Organization* 47(1): 4-12. 9 references. DOI:10.5771/0943-7444-2020-1-4.

Abstract: The referencing habits of scholars, having abandoned physical bibliography for harvesting of digital resources, are in crisis, endangering the bibliographical infrastructure supporting the domain of knowledge organization. Research must be carefully managed and its circumstances controlled. Bibliographical replicability is one important part of the social role of scholarship. References in *Knowledge Organization* volume 45 (2018) were compiled and analyzed to help visualize the state of referencing in the KO domain. The dependence of science on the ability to replicate is even more critical in a global distributed digital environment. There is great richness in KO that make it even more critical that our scholarly community tend to the relationship between bibliographical verity and the very replicability that is allowing the field to grow theoretically over time.

Cho, Hyerim, Thomas Disher, Wan-Chen Lee, Stephen A. Keating and Jin Ha Lee. 2020. "Facet Analysis of Anime Genres: The Challenges of Defining Genre Information for Popular Cultural Objects." *Knowledge Organization* 47(1): 13-30. 50 references. DOI: 10.5771/0943-7444-2020-1-13.

Abstract: Anime, as a growing form of multimedia, needs a better and more thorough organization for its myriad unique terminologies. Existing studies show patrons' desire to search and get recommendations for anime. However, due to inadequate indexing and often confusing or inaccurate usage of terms, searching and acquiring recommendations remain challenging. Our research seeks to close the gap and make discovery and recommendations more viable. In this study, we conducted a facet analysis of anime genre terms that are currently used in thirty-six anime-related English-language databases and websites. Using a card sorting method with an inductive approach to the 1,597 terms collected, we identified and defined nine facets and 153 foci terms that describe different genres of anime. Identified terms can be implemented within different organizational systems including library catalogs, recommendation systems, and online databases to improve genre definitions and search experiences.

Shiv Shakti Ghosh, Subhashis Das, and Sunil Kumar Chatterjee. 2020. "Human-centric Faceted Approach for Ontology Construction." *Knowledge Organization* 47(1): 31-44. 39 references. DOI:10.5771/0943-7444-2020-1-31.

Abstract: In this paper, we propose an ontology building method, called human-centric faceted approach for ontology construction (HCFOC). HCFOC uses the human-centric approach, improvised with the idea of selective dissemination of information (SDI), to deal with context. Further, this ontology construction process makes use of facet analysis and an analytical-synthetic classification approach. This novel fusion contributes to the originality of HCFOC and distinguishes it from other existing ontology construction methodologies. Based on HCFOC, an ontology of the tourism domain has been designed using the Protégé-5.5.0 ontology editor. The HCFOC methodology has provided the necessary flexibility, extensibility, robustness and has facilitated the capturing of background knowledge. It models the tourism ontology in such a way that it is able to deal with the context of a tourist's information need with precision. This is evident from the result that more than 90% of the user's queries were successfully met. The use of domain knowledge and techniques from both library and information science and computer science has helped in the realization of the desired purpose of this ontology construction process. It is envisaged that HCFOC will have implications for ontology developers. The demonstrated tourism ontology can support any tourism information retrieval system.

MacFarlane, Andrew, Sondess Missaoui and Sylwia Frankowska-Takhari. 2020. "On Machine Learning and Knowledge Organization in Multimedia Information Retrieval." *Knowledge Organization* 47(1): 45-55. 44 references. DOI:10.5771/0943-7444-2020-1-45.

Abstract: Recent technological developments have increased the use of machine learning to solve many problems, including many in information retrieval. Multimedia information retrieval as a problem represents a significant challenge to machine learning as a technological solution, but some problems can still be addressed by using appropriate AI techniques. We review the technological developments and provide a perspective on the use of machine learning in conjunction with knowledge organization to address multimedia IR needs. The semantic gap in multimedia IR remains a significant problem in the field, and solutions to them are many years off. However, new technological developments allow the use of knowledge organization and machine learning in multimedia search systems and services. Specifically, we argue that, the improvement of detection of some classes of low-level features in images music and video can be used in conjunction

with knowledge organization to tag or label multimedia content for better retrieval performance. We provide an overview of the use of knowledge organization schemes in machine learning and make recommendations to information professionals on the use of this technology with knowledge organization techniques to solve multimedia IR problems. We introduce a five-step process model that extracts features from multimedia objects (Step 1) from both knowledge organization (Step 1a) and machine learning (Step 1b), merging them together (Step 2) to create an index of those multimedia objects (Step 3). We also overview further steps in creating an application to utilize the multimedia objects (Step 4) and maintaining and updating the database of features on those objects (Step 5).

Włodarczyk, Bartłomiej. 2020. “KABA Subject Headings and the National Library of Poland Descriptors in Light of Wojciech Wrzosek’s Theory of Historiographical Metaphors and Different Historiographical Traditions.” *Knowledge Organization* 47(1): 56-71. 60 references. DOI:10.5771/0943-7444-2020-1-56.

Abstract: The aims of this article are, first, to provide a necessary background to investigate the discipline of history from the knowledge organization (KO) perspective, and secondly, to present, on selected examples, a way of analyzing knowledge organization systems (KOSs) from the point of view of the theory of history. The study includes a literature review and epistemological analysis. It provides a preliminary analysis of history in two selected universal Polish KOSs: KABA subject headings and the National Library of Poland Descriptors. The research is restricted to the high-level concept of historiographical metaphors coined by Wojciech Wrzosek and how they can be utilized in analyzing KOSs. The analysis of the structure of the KOSs and indexing practices of selected history books is performed. A particular emphasis is placed upon the requirements of classical and

non-classical historiography in the context of KO. Although the knowledge about historiographical metaphors given by Wrzosek can be helpful for the analysis and improvement of KOSs, it seems that their broad character can provide the creators only with some general guidelines. Historical research is multidimensional, which is why the general remarks presented in this article need to be supplemented with in-depth theoretical and empirical analyses of historiography.

Lee, Deborah. 2020. “Hornbostel-Sachs Classification of Musical Instruments.” *Knowledge Organization* 47(1): 72-91. 73 references. DOI:10.5771/0943-7444-2020-1-72.

Abstract: This paper discusses the *Hornbostel-Sachs Classification of Musical Instruments*. This classification system was originally designed for musical instruments and books about instruments, and was first published in German in 1914. Hornbostel-Sachs has dominated organological discourse and practice since its creation, and this article analyses the scheme’s context, background, versions and impact. The position of Hornbostel-Sachs in the history and development of instrument classification is explored. This is followed by a detailed analysis of the mechanics of the scheme, including its decimal notation, the influential broad categories of the scheme, its warrant and its typographical layout. The version history of the scheme is outlined and the relationships between versions is visualised, including its translations, the introduction of the electrophones category and the Musical Instruments Museums Online (MIMO) version designed for a digital environment. The reception of Hornbostel-Sachs is analysed, and its usage, criticism and impact are all considered. As well as dominating organological research and practice for over a century, it is shown that Hornbostel-Sachs also had a significant influence on the bibliographic classification of music.