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Rafferty, Pauline. 2019. “Disrupting the Metanarrative: A Little History of Image Indexing and Retrieval.” *Knowledge Organization* 46(1): 4-14. 83 references. DOI:10.5771/0943-7444-2019-1-4.

Abstract: The aims of this paper are twofold: to offer a short history of image retrieval, and secondly and relatedly, to critique the metanarrative of modernity emerging in the literature of knowledge organization and information retrieval. The paper reviews the emerging grand narrative in relation to knowledge organization and information retrieval that sees them as specific aspects of modernity and technological efficiency. This grand narrative is particularly interested in technology even when it is contextualising technology. A more nuanced history emerges when the focus moves to the representation, organization, and retrieval of images. This literature foregrounds not only the technology but also issues relating to definitions of the “subject” and issues relating to interpretation and meaning-making.

Xu, Liwei and Jiangnan Qiu. 2019. “Unsupervised Multi-class Sentiment Classification Approach.” *Knowledge Organization* 46(1): 15-32. 64 references. DOI:10.5771/0943-7444-2019-1-15.

Abstract: Real-time and accurate multi-class sentiment classification serves as a tool to gauge public user experiences and provide a decision-making basis for timely analysis. In the field of sentiment classification, there is an urgent need for an accurate and efficient multi-class sentiment classification method. With the aim to overcome the drawbacks of the existing methods, we propose a novel, unsupervised multi-class sentiment classification method called Gaussian mixture model of multi-class sentiment classification (GMSC). Based on the Gaussian mixture model (GMM), the GMSC consists of the following essential phases: first, combining a dictionary with microblog texts to calculate and construct the feature matrix of sentiment for each sample; second, introducing a dimension reduction method to avoid the influence of a sparse feature matrix on the results; third, modeling the multi-class sentiment classification procedure based on GMM; and lastly, computing the probability distribution of different categories of sentiment by using GMM to partition sentiments in microblogs into distinct components and classify them via a Gaussian process regression. The results indicate the GMSC approach’s accuracy is better and manual tagging time is reduced when compared to semi-supervised and unsupervised sentiment classification methods within the same parameters.

Frické, Martin. 2019. “The Knowledge Pyramid: the DIKW Hierarchy.” *Knowledge Organization* 46(1): 33-46. 93 references. DOI:10.5771/0943-7444-2019-1-33.

Abstract: The data-information-knowledge-wisdom (DIKW) hierarchy or pyramid is a model or construct that has been used widely within information science and knowledge management. The nature of the pyramid is explained, and its historical origin is described. The conceptual components of the pyramid—i.e. data, information, knowledge, and wisdom—are given brief explication. Some modern developments, criticisms, and rebuttals of the DIKW Pyramid are described. Nowadays, the DIKW Pyramid would generally be considered to be unsatisfactory. The arguments and reasoning behind this conclusion are sketched. It is claimed that two more concepts, document and sign, are necessary to provide a fruitful theoretical frame for knowledge organization.

Finnemann, Niels Ole. 2019. “Web Archive.” *Knowledge Organization* 46(1): 47-70. 99 references. DOI:10.5771/0943-7444-2019-1-47.

Abstract: This article deals with the function of general web archives within the emerging organization of fast-growing digital knowledge resources. It opens with a brief overview of reasons why general web archives are needed. Sections two and three present major, long term web archive initiatives and discuss the purposes and possible functions and unknown future needs, demands and concerns. Section four analyses three main principles for the selection of materials to be preserved in contemporary web archiving strategies, topic-centric, domain-centric and time-centric archiving strategies and how to combine these to provide a broad and rich archive. Section five is concerned with inherent limitations and why web archives are always flawed. The last section deals with the question whether and how web archives may be considered a new type of knowledge organization system (KOS) necessary to preserve web materials, to allow for the development of a range of new methodologies, to analyze these particular corpora in long term and long tail perspectives, and to build a bridge towards the rapidly expanding but fragmented landscape of digital archives, libraries, research infrastructures and other sorts of digital repositories.