Knowledge Organization

Seventh Annual "Best Paper in *KO* Award" for Volume 46 (2019)*
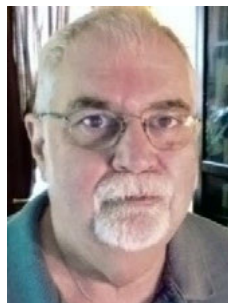
Awarded jointly to:

Vanda Broughton, for "The Respective Roles of Intellectual Creativity and Automation in Representing Diversity: Human and Machine Generated Bias." *Knowledge Organization* 46, no. 8: 596-606.

and

Richard P. Smiraglia, for "Work." *Knowledge Organization* 46, no. 4: 308-19.

Broughton, Vanda. 2019. "The Respective Roles of Intellectual Creativity and Automation in Representing Diversity: Human and Machine Generated Bias." *Knowledge Organization* 46(8): 596-606.

Abstract: The paper traces the development of the discussion around ethical issues in artificial intelligence, and considers the way in which humans have affected the knowledge bases used in machine learning. The phenomenon of bias or discrimination in machine ethics is seen as inherited from humans, either through the use of biased data or through the semantics inherent in intellectually-built tools sourced by intelligent agents. The kind of biases observed in AI are compared with those identified in the field of knowledge organization, using religious adherents as an example of a community potentially marginalized by bias. A practical demonstration is given of apparent religious prejudice inherited from source material in a large database deployed widely in computational linguistics and automatic indexing. Methods to address the problem of bias are discussed, including the modelling of the moral process on neuroscientific understanding of brain function. The question is posed whether it is possible to model religious belief in a similar way, so that robots of the future may have both an ethical and a religious sense and themselves address the problem of prejudice.

Vanda Broughton is Emeritus Professor of library and information studies at University College London. Her principal research interest is in the development of faceted classification, particularly as it affects different disciplines. She is editor of the second edition of the *Bliss Bibliographic Classification* (*BC2*), and an associate editor of the Universal Decimal Classification. In addition to the published volumes of *BC2*, she is author of several books on knowledge organization systems and numerous articles and conference papers.

Smiraglia, Richard P. 2019. "Work." *Knowledge Organization* 46, no. 4: 308-19.

Abstract: A work is a deliberately created informing entity intended for communication. A work consists of abstract intellectual content that is distinct from any object that is its carrier. In library and information science, the importance of the work lies squarely with the problem of information retrieval. Works are mentefacts—intellectual (or mental) constructs that serve as artifacts of the cultures in which they arise. The meaning of a work is abstract at every level, from its creator's conception of it, to its reception and inherence by its consumers. Works are a kind of informing object and are subject to the phenomenon of instantiation, or realization over time. Research has indicated a base typology of instantiation. The problem for information retrieval is to simultaneously collocate and disambiguate large sets of instantiations. Cataloging and bibliographc tradition stipulate an alphabetico-classed arrangement of works based on an authorship principle. *FRBR* provided an entity-relationship schema for enhanced control of works in future catalogs, which has been incorporated into RDA. FRBRoo provides an empirically more precise model of work entities as informing objects and a schema for their representation in knowledge organization systems.

Richard P. Smiraglia holds a PhD in information from the University of Chicago. He is Senior Fellow and Executive Director of the Institute for Knowledge Organization and Structure, Inc. and is Editor-in-Chief of this journal. He also is Professor Emeritus of the iSchool at the University of Wisconsin-Milwaukee. He was 2017-2018 KNAW Visiting Professor at DANS (Data Archiving and Networked Services division of the Royal Netherlands Academy of the Arts and Sciences), The Hague, The Netherlands, where he remains visiting fellow and was the 2018 recipient of the 2018 Frederick G. Kilgour Award for Research in Library and Information Technology.