Organizing Acts and Objects: Metaphysical Foundations

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Abstract: A seldom-discussed, but nonetheless important, element of knowledge organization is the metaphysical underpinning of description and organization. The fundamentals of metaphysics and ontology are introduced here and the essential nature of their application is explored. In particular, applied metaphysics is presented as a conceptual and practical tool that can be used in the work of knowledge organization. The conclusion holds that the application of categories will especially benefit from the application of metaphysical principles.

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1.0 Introduction

David Manley (2009, 1) writes, "Aside from concrete objects, are there abstract objects like numbers and properties?" If the answer to Manley's question is yes, what can be said about the existence of knowledge organization and all of its activities? The topic of the potential metaphysical state of organization has scarcely been tackled in our profession. Nonetheless, there has arisen a presupposition that there is some metaphysical truth relating to at least some portions of the actions undertaken in organizational activities. It will not be addressed here, but there is acceptance that the organization of knowledge is most appropriately undertaken by identification of sets of "ontologies" that can be used for description. At times "ontology" is defined in terms relative to a set of semantic steps that can provide increasing richness to description (and, usually, to organization for retrieval possibilities). For example, Hilera, et al. (2010) describe application of ontologies to Web-based design, artificial intelligence, and other fields, as they proceed to define for their purposes "tools [that combine lower-level semantic] relationships with other more complex relationships between concepts to completely represent a certain knowledge domain" (195). More to the point, Dahlberg (2006) argued for the scientific systematization of subject fields, which could be taken to require metaphysical analysis.

The concept of metaphysical, or ontological, natures of information and organization is not new; Marcia Bates (2006) articulates a clear premise when she states that "the argument presented here is that we can talk about information as an objectively existing phenomenon in the universe, which is also constructed, stored, and acted upon by living beings in countless different subjective ways, each way distinctive to the individual animal having the experience" (1034). In response to Bates, Hjørland (2007) differs and argues in favor of a subjective/situational nature for information. It is not that I disagree entirely with Hjørland regarding a subjective element to human processes of discerning meaning and reaching understanding. I do differ with him (and agree with Bates) that there should be a "fundamental" definition of what knowledge is. Knowledge carries meaning, and meaning is certainly inferred from it. Also, we employ information and knowledge as

metaphysical realities as a means for gaining understanding of the world around us. That said, knowledge is also a phenomenological entity that, as Merleau-Ponty (1961) says, is imbued with "extreme objectivism in its notion of the world or of rationality" (xix). What follows does not deny the semantic and epistemological elements of human perception of information (and the action that information has a role to play in giving shape to meaning, understanding, and knowledge), but it aims to affirm what Bates (and others, such as Szostak (2008)) claim about the metaphysical nature of knowledge. Hansson (2013) also adds an important mention of the materiality of knowledge organization, noting that the social production of documents includes determined influence.

To be sure, the present investigation is not intended to be an exercise in pure theory; the philosophical definitions of metaphysics and ontology can provide vital importance, not only to how we may view the professions of librarianship and IS, but to the heart of practice. If we begin with an oversimplified statement that metaphysics is the study of "what is," there is still a case to be made for a deep understanding of the principles and applications pertaining to it. In fact, the positive argument will be made here that enrichment of the professions of librarianship and knowledge organization will be constrained and stifled if there is not a clear metaphysical purpose which can guide action and education. What will be shown is a much deeper probing than we have seen in our field previously into what philosophical metaphysics and ontology do mean and how the understanding of what they stand for and what they can help professionals accomplish. For one thing, some frequently employed usages of metaphysics will be avoided here. These are what Frăteanu (1999) refers to as "suprasensible" elements, or the components which transcend what comprises sensible experience. Theological or spiritual aspects of existence may be categorized as suprasensible. In Kantian terms, those concerns are with the noumenal. Attention here is solely on the sensible (the phenomenal), and that component will be described below. What is of interest here is applied metaphysics, or metaphysics as the imminent real (as opposed to some transcendental ideal). The proposition presented here is that the processes and outcomes of informing are material. There is a metaphysical/ontological reality to informing. This paper will present extensive evidence supporting the proposition; it will be offered below.

2.0 Definitions

What is one asking about when one enquires into metaphysics? For one thing, contemporary metaphysics differs so extensively from ancient ideas that it makes more sense to pay more attention to the definitions that are offered today than to present a history lesson. This emphasis on the contemporary certainly does not suggest that there is a single answer to the foregoing question, though. The more customary philosophical ideas ask about the concept of being, why something exists rather than nothing, and why only one actual world exists (Jacquette, 2002, xi). The concept of metaphysics has undergone numerous transformations, even within the philosophical life of individuals, such as Kant. He began accepting classical and medieval metaphysics (more of the suprasensible type). Later in his life, during the period when he was drafting his critiques, he turned more to reliance on the physical explanations of, say, Newton as incorporating the imminence of reason (instead of some transcendent form). The critiques were extremely influential, even beyond the philosophical world, since they appeared to be in keeping with the science of the times. It must be noted that Kant's critiques are much more extensive than the attention paid to metaphysics *qua* metaphysics, but that attention formed a literal foundation for the construction of the critiques. According to his later thought, the only things we could be certain of is what we could experience—the physical. Kant's ideas were not isolated and were not entirely original (although his expression certainly was unique). The philosophers and scientists of the Enlightenment were questioning the metaphysical tradition; Galileo's astronomy partly paved the way to physicalism, and he was followed by Hobbes and others. It must be carefully noted that, while Kant altered his own conceptualizations, there was no uniformity on the metaphysics front. Scott Lash (2007) makes a special effort to mention that "for [Georg] Simmel (1995), critical Kant epitomized the physical while Goethe and Nietzsche were the flag-bearers for metaphysics" (3).

The distinction will become evident below as the concept shared by many philosophers that metaphysics entails the composition and identification of properties is explored. While the concept of properties may sound simple, even straightforward, metaphysics has demands that must be fulfilled for properties to be conceived completely and to have application for a realist ontology. Whitehead (1978) enumerates eight categories of existence and concludes, "Among these eight categories of existence, actual entities and eternal objects stand out with a certain extreme finality" (22). Jaquette (2002) articulates the demands succinctly: "Nothing is meaningful, true or false at all, except by virtue of a property being truly or falsely predicated of an object or objects" (48). The object Jaquette mentions can be taken to be a "document," or informing object, in knowledge organization. The discussion below of categories and categorization will make Jaquette's stipulation clearer.

One need not travel back in time to Kant; there are contemporary skeptics of metaphysics. Van Fraassen (2002), for example, writes, "Here is what I mean when I say that God is dead: The God of the philosophers is dead. This God is dead because he is a creature of metaphysics … and metaphysics is dead" (1). Van Fraassen is not arguing against *in toto*, however; he expresses difficulties with some kinds of analytical ontology. He agrees with Lewis (see below) that there are many possible worlds, so analysis of what exists in this world is insufficient; it does not-cannot account for the existence of possible worlds. As we will see, this argument can be found wanting, since analysis of anything other than the actual world can be nothing other than hypothetical. The foregoing demonstrates that there has been—and is—an uneven, and uneasy, past when it comes to defining and envisioning metaphysics within the complexities of life. The thesis that will be presented here is not only that our being is essentially metaphysical today, but there is a need to derive an applied metaphysics for our futures to have meaning, purpose, and practice. For the purposes here, metaphysics will be used alongside ontology, especially given Whitehead's (1978) succinct definition of ontology: "The ontological principle can be summarized as: no actual entity, then no reason" (19). In short, Whitehead dispenses with critiques, and deniers, of metaphysics; his stance is accepted here precisely as he articulated it.

3.0 Applied metaphysics

Before we delve into applied metaphysics we should point out that some philosophers doubt whether there is even a possibility for applied metaphysics, since the field itself is not only abstract, but is intended to be completely abstract. In other words, while science seeks concrete answers to concrete questions, philosophy—metaphysics included—addresses abstractions and provides abstract indications of possibilities. That opinion is not universally held, though; some contend that there are genuine applications for metaphysics. To place this matter within a context, the discipline of knowledge organization is still struggling to articulate a definition of "information" that not only can be widely accepted, but widely applied. To mention only one definition, Buckland (1991) discusses three possible definitional constructs (process, knowledge, and thing). He argues against "knowledge" as a definitional centerpiece because knowledge does not have properties that can be shared or agreed upon by some mechanism that can be widely used. "Knowledge," in this usage, has neither the idealist nor the realist qualities needed for any conception of what is. Buckland's argument in this respect is quite cogent. He also critiques several prevailing ideas about information, especially those which entail specific kinds of communicative acts and the content of the communication (not by denying that the acts occur, but by disputing their existence as information). His stance is actually one of metaphysical anti-realism, even though he emphasizes the seeming physicality of information as appropriate for use in material systems. At one point Buckland (1991) states, "We have shown that (1) the virtue of being information-as-thing is situational and that (2) determining that any thing is likely to be useful information depends on a compounding of subjective judgements [sic]" (357). Dahlberg (2014) takes a quite different view, adopting the stance that information is knowledge, and, as such, is describable in more than merely physical terms. A taxonomy, by its nature, extends beyond the physical to the intellectual and even to the contextual.

Why is this an anti-realist stance? Simply put, the answer is provided by David Chalmers (2009): "The basic question of ontology is 'What exists?' The basic question of metaontology is: are there objective answers to the basic questions of ontology? Here ontological realists say yes, and ontological anti-realists say no" (77). Harré and Krausz (1996) expound on relativism in considerably greater detail than does Buckland. They suggest that ontological relativism is a matter of "versions." A speaker from one time and place (space) speaks according to the conventions of that time and place. "Every version is the product of the use of a distinctive symbolic system, and that requires that there be someone who is the user of that system, whom we will call 'The First Speaker'" (Harré and Krausz, 1996, 140). There may be a Second Speaker, who not even be aware of the First Speaker. What is more like, however (although Harré and Krausz do not speak to this point), is that the Second Speaker is aware of the First, and possibly even a Third. These individuals or groups can even be speaking against or past one another so as to presume ascendancy for their claims. The relativism can indeed be the product of independently derived symbolic systems, but they are as likely to be the product of agonistic symbolic systems. Relativism need not be incidental or accidental; it can be intentional. It is because of such a phenomenon (not a noumenon as Kant would prefer) that Husserl (1980) can say, "it happens that for objectivities which, like *nature and mind*, are not constituted in one level (as are elementary thought-objects such as numbers, size, and the like), but rather in manifold levels, an ontology has such very great difficulties … ontology is not phenomenology" (117). (Husserl does not say that ontological entities and properties cannot be related to phenomenology.)

Husserl presents a clincher for the question of relativism and anti-realism, even though several prominent philosophers (see David Chalmers 2009) stick to their anti-

realist guns. Ontological realism is not exactly applied metaphysics, but it is a step in that direction. To define realism, the following is essential:

> There are two general aspects to realism, illustrated by looking at realism about the everyday world of macroscopic objects and their properties. First, there is a claim about existence. Tables, rocks, the moon, and so on, all exist, as do the following facts: the table's being square, the rock's being made of granite, and the moon's being spherical and yellow. The second aspect of realism about the everyday world of macroscopic objects and their properties concerns independence. The fact that the moon exists and is spherical is independent of anything anyone happens to say or think about the matter. Likewise, although there is a clear sense in which the table's being square is dependent on us (it was designed and constructed by human beings after all), this is not the type of dependence that the realist wishes to deny. The realist wishes to claim that apart from the mundane sort of empirical dependence of objects and their properties familiar to us from everyday life, there is no further sense in which everyday objects and their properties can be said to be dependent on anyone's linguistic practices, conceptual schemes, or whatever.

Theodore Sider (2009) has some additional strident criticism for anti-realists. In his view, anti-realists and deflationists are avoiding the actual state of affairs. He states, "Their beef is just with ontology (and in some cases, just with the ontology of composite material objects) (387). Some ontologists reduce all that can be claimed to exist as "simples;" a simple is usually assumed to be the most fundamental logical entity, and it cannot be reduced to anything more logically basic (see, for example, Jaquette, 2002, 51). In a most simplified claim, Sider (2009) says, "We ought to believe in an objective structure to reality" (397). In this attitude Sider is expressing an affinity with scientists, who are attempting to describe and explain objective reality—in empirical or in theoretical terms. Philosophers should not separate themselves from others who are examining what is real; that is a stance with which I agree. The alternative is a rupture between philosophy and other disciplines with which it frequently claims kinship.

As is noted above, the realist position provides an entrée to application. Another challenge arises here: What do we mean by application? The definition is not, as is frequently the case, a manner by which tools can be used to construct some pre-determined, or planned, outcomes. That is, metaphysics is not a blueprint or toolbox that can help build a retrieval system or an information literacy program (at least not directly). What metaphysics can do is offer particular ways to develop conceptions that place us on the routes to the development of outcomes. The very idea of application requires explication. One concern, expressed by Brumbaugh (1966), is that time is not like space according to modal logic. Modality asserts strong claims, such as "it is necessary that" or even "it is possible that." In other words, modality is the foundation for logical assertions of possibility, impossibility, or contingency. For instance, speaking about spatial possibility (what can be done or accomplished within the constraints of geometry) is quite different from speaking about temporal possibility (one can consider possibilities for the present and the future, but not the past). When informing acts and objects, and their description, are considered, temporal possibility is of greater important (now more than ever) than spatial possibility.

Jacquette (2002) is more explicit in defining applied metaphysics: "Applied scientific ontology advances a preferred existence domain consisting of three categories of existent entities, including existent (we can also say actual) objects, existent states of affairs, and the actual world" (xi). Other philosophers, such as David Lewis (1986), disagree with this applied version and suggest that there is an infinite number of possible worlds. Anything that can be imagined must exist in some possible world; if one can imagine a unicorn, for example, there is a possible world in which unicorns exist. For philosophers like Lewis there can be suggestively fascinating conversations about what might be possible and, by extension, does the possibility exist in this world or in some other one. Interesting as the discussion might be (and potentially correct in the realm of abstract ontology), the argument for possible worlds is irrelevant to the study of knowledge organization. Jacquette (2002) once again provides the rationale for applied metaphysics of a realist sort: There is an "actual world of all real or existent entities described by a complete true theoretical ontology" (3). One addition can be made to his definition; the actual world—the world in which we live and which we examine—is not static. An engineer may invent an alternative to the internal combustion engine that is unlike any that now exists. That engineer, though, invents the alternative by means of employing tools and knowledge that are accessible in this world, without resorting to abstractions existent in a possible world. Therefore, the "new" is not precluded in the actual world.

Applied metaphysics as it is considered here still relies on the questions asked within pure philosophical metaphysics. In other words, we have to return to the kinds of questions Manley asks (see above): Are there properties? What is meant by being? Does every event have a cause? When do seemingly simple things join to become a single

larger thing? Why is there something rather than nothing? (Manley, 2009, 1). The transition from pure philosophical metaphysics to applied metaphysics entails, among other things, how categories of things might be constructed and what the relationships of the categories might be. Before undertaking the (daunting) task of suggesting how those two tasks might be undertaken, more background must be described. Before delving more deeply into the applications of metaphysics in LIS, I will go out on a limb and defy much of today's neuroscience that claims to be able to explain thought and the loci of mental activity, decisions, and the like. I will follow Peter van Ingwagen (1993, 36) instead:

> It is true that no one has any account of how thoughts and sensations could be features of physical organisms. In fact, no one can say what an account of this would look like, even in the broadest outline. But then no one has any account of how there could be such a thing that had only mental properties, and no one can say what an account of this would look like, even in the broadest outline.

Van Ingwagen successfully challenges two fundamental philosophical positions, while adding challenges to neuroscientific ones as well. Gutting (1996) offers a clear description of accepting uncertainty while positioning description in a world where vagueness and caprice are not acceptable: "My realism about science [if knowledge organization is to be a science, Gutting's comment is especially appropriate] is even consistent with many contemporary claims about the fundamentally social nature of the scientific enterprise—including claims about the socially negotiated nature of scientific concepts and justifications. It contradicts social constructivist accounts only when these are pushed to a skeptical limit" (47). He leaves us with the option that Chalmers expresses so eloquently; without absolute answers to mental activity, we are left with being Mysterians.

Applied metaphysics also relates rather closely to elements of linguistics. The most obvious point of contact is semantics; the application of what is real depends upon what is meant. The larger area of semantics is not of concern here, a sub-field is, though. With respect to informing acts and objects, context is an almost essential property contributing to meaning. Linguistic pragmatics is a field that ought to receive more attention in knowledge organization. Principles that can be applied include conventional elements, such as implicature (or what is less directly meant by speech acts, see Grice (1989)). An unrecognized feature of pragmatics, implicature in particular, is the role of "reference" in informing objects. Reference may be subtle and may occur in the form of metaphor or mention of mythology or literature (such as a reference to Narcissus within the context of self-centeredness). A more explicit form of reference, pertinent in organization, is a literal form in which prior works are mentioned and cited. There may even be quotations from the works as a means to situate what the object is intended to communicate. In fact, the most useful aspect of pragmatics in a field like knowledge organization is the very act of situating. Meaning can be conveyed by means of use of what other objects include and what other human acts have aimed to achieve. Applied metaphysics cannot ignore the acts of citing and quoting as ways of enhancing or clarifying (or situating) meaning.

4.0 Approaching categories

This section is titled "Approaching Categories" deliberately. We are not yet prepared either to establish ontologically informing categories or to develop schemata for the establishment of such categories. As Burbidge (2014) remarks, "We interpret [what is given], and this means … that we introduce conceptual categories to make sense of them. The given data are taken as signs to be organized by our thoughts into coherent theories" (12). One of the challenges that has to be overcome at this time is Chisholm's (1996) claim that, while there are substances and there are events, neither can be defined or described in terms of the other (4-5). This notion is opposed to Buckland's categories, as we have seen. Also, the notion seems opposed to substances and events that may be conjoined. A serious question arises: Can a substance be constitutive of an event, or vice versa? If information is indeed physical (in either a realist or anti-realist way), it seems reasonable to expect events involving the exchange of information. When a person exchanges information with another person, the event of informing can be seen as constitutive of the creation or exchange of something that has no meaning without exchange. Granted, this claim is opposite to Popper's (1972) Third World of extant, but perhaps not applied, "information." The presumption here is that existence (ontology) relies not only on some thing that resides in some place at some time, but some materially real object that is constituted with and by an event. There is not space to go into a lengthy excursus here, but the constitutive and regulative relations of substance and event have phenomenological foundations. That is, there is a self and other who are necessary to the event. The difference between the ontological structure claimed here and Popper's illustrates Heil's (2003) idea that "there is no correct ontology, only diverse ways of carving up ontological space" (3). If we accept that knowledge is, in some ways, transcendent of information, Popper's claim requires revision.

For a metaphysics of knowledge and knowing—and especially categorization—to make sense, it is necessary to apply some technical aspects of ontology, especially the related field of mereology (the examination of parts and wholes, or "parthood" relationships). A description of the application of mereology helps effectuate the purpose of this section—the prelude to application of categories. In non-technical terms one can say that the ink cartridge is part of the pen, the area rug is part of the living room ensemble, the left kidney is part of Bob, etc. The examination can, of course, become more complicated quite readily. The inferior vena cava is connected to the right atrium, which is part of Bob's heart. A bit of technical description of the ways mereology is applied must precede the discussion of applied categorization. An expression of the extension of mereology is presented by van Cleve (2008): "given any collection of objects, no matter how disparate or widely scattered, there is a further object composed of them all" (321). As we will see, van Cleve's commitment can apply to informing objects. The most complete source for mereology and its details is the book, "Parts", by Peter Simons (1987.) Putnam (2004) presents the complexity of extensional mereology (extensional in the sense that elements can be combined in extended ways).

It is within this informational and discursive context that the application of mereology as a branch of metaphysics becomes apparent. Let us assert a hypothetical here and examine the extent to which the foregoing can apply. One example from the LIS literature may assist here. Oyarce (2008) has established a model that can indicate relevant and non-relevant documents. See Figure 1.

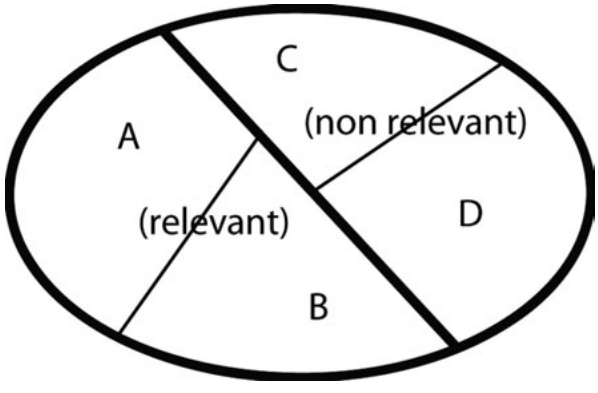

Figure 1. Oyarce's Graphic Model

In mereological terms this could be expressed as: $\exists A P(A); \exists B P(B)$. The symbolization indicates that there are values *A* and *B* such that *P(A)* and *P(B)* are true. Because of the states of *C* and *D*, the universal quantifier $(\forall)$ cannot be applied here.

Van Inwagen (1990) suggests a somewhat simpler construction:

> *x* is a sum of the *y*s $=_{df}$ the *y*s are all parts of *x* and every part of *x* overlaps at least one of the *y*s.

All pennies in the universe would be something of which pennies are parts, for instance. We could also think of the accumulative features of informing objects. Whereas a penny is a denomination of coinage (and is not constitutive of all coins), certain kinds of informing objects can be considered parts of a larger whole (but that whole is not comprised of all informing objects). Van Cleve (2008) expresses the nature of combination in the technical language used above:

> $\exists x(x \text{ is a member of } A) \rightarrow \exists x(x \text{ is a sum of } A$ & $(y)(y \text{ is a sum of } A \rightarrow x = y))$

Van Cleve's (2008) own explanation offers the most complete explanation: "On half (the half that employs only the first conjunct in the consequent) says that for any non-empty set of entities, there is at least one sum of that set, that is, at least one entity that the members of that set compose. The other half (the half that employs the second conjunct in the consequent) tells us that there is at most one sum" (322-23). Imagine a quest for understanding about a complex phenomenon; one task is to gather informing objects and sort them into the set of relevant items (omitting those deemed not relevant). The first set (by relevance) indicates at least one sum; elimination of the second set (not relevant) indicates at most one set that fulfills the criteria of the query. Van Cleve (2008) makes one more point that is vital to our concerns; the sets that do result in sums do so by means of dynamical connectedness. This point may be the most important to the consideration of metaphysics and informing objects here. A lesson we should take away is that there is an infinite number of possible sets, comprised of infinite connections of parts. The only means by which this mereological phenomenon can be investigated is the individual a priori definition of the set in question. This realization has enormous implications for categorization.

5.0 Categories

This is a challenge that people in many disciplines have been struggling with for centuries (even longer if we consider the thought of Plato and Aristotle, among others). What constitutes a category? What separates one category from others? These are enormous questions and there is no space to address them in full here. The focus

will be on the quest by individuals to become informed on definable areas of knowledge. Even this is a massive topic, but what follows will be a beginning of a compilation of metaphysical possibilities that can be applied by individuals at all levels of knowledge and awareness (in the sense of being informed). It is not the purpose here to reconcile or build a program according to which there may be effective ontological decision making as individuals seek to create sets of informing objects that suit specific purposes. A caveat: what follows is not intended to be an alternative classification scheme; that task is beyond the scope of this present project.

Let us work now with a realistic hypothetical. A researcher is investigating work on the subject of "information retrieval." The researcher searches the database Library, Information Science & Technology Abstracts with Full Text® to locate items on the topic. A search conducted on 9 September 2014 yields 1,561 documents, limited to scholarly periodicals, published in English, from January 2011 to date. This set constitutes the Universe of documents (within the stated parameters). The researcher wonders if the documents are represented as $\forall_x$ or adhering to the statement, $\forall x P(x)$, or for every x, P(x) is true. The alternative is $\exists x P(x)$, or P(x) is true is at least one element in the domain is true. Which alternative is likely to obtain? It is unlikely that all 1,076 documents are true. It is probable, though, that at least one is true within the context of the researcher's query and need. The first hit in the search is, "The semantic hole: Enthusiasm and caution around multimedia information retrieval," by Roberto Raieli (Knowledge Organization, 39, 2012, 13-22). Suppose the researcher is interested primarily in information retrieval and multimedia objects. She adjusts the search to include the subject, "multimedia systems." The number of hits is reduced to nine. The researcher then determines that, say, seven of the nine hits fulfill the project needs. The researcher broadens the search to include the two terms in the texts of documents or in titles, and retrieves a set of eleven documents (eight of which fit the need). At this point the researcher is satisfied that there is a set of documents that comes closer to $\forall_x$.

This example actually uses formal categories, but there are other possibilities for the researchers. The text of some documents might concentrate, not on all media, but on film (which is the genuine interest of the researcher). A search yields only one document. Suppose the researcher returns to the eight documents that are deemed fitting to her project, and examines references lists or bibliographies. Suppose further that there are an additional sixteen potentially informing documents located by this means (that were not to be found via the formal search). It is, then, the researcher who is categorizing documents according to personal and professional need. She may then also examine the reference lists of the sixteen additional documents and finds another ten truth-bearing items. There is, as a result of the efforts of the researchers, a total of thirty-four items that satisfy the condition that P(x) is true. The effort required by the researcher, though, is a complex mereological investigation; there can be no presumption that the formal classification naturally provides the truth-bearing content sought by the researcher.

The above example should make it clear that there is not likely to be an *a priori* mechanism that is able to make a determination regarding the truth of an item. The truth claim is the first challenge faced in evaluating metaphysical status for any document. The evaluation is much more difficult than deciding the truth of a mathematical or logical proposition or theorem. That said, decisions about truth are not impossible, or even improbable. Goldman (2002) enumerates criteria that can be used for truth assessment. Further, Budd (2011) expounds on criteria such as Goldman's, along with semantic veritism. Are these proposals sufficient for asserting that documents are metaphysically (ontologically) real? All of the foregoing argument suggests that they are necessary for the assertion. Sufficiency is another matter. If a document is determined to have meaning by readers of the document (and there is agreement among the readers), then the document is real in this, the actual world. That is, there is an epistemic community that has the competence to evaluate meaning, and that community decides positively regarding the meaning of a document. It can be said that the document has the property of meaning. Meaning itself is multifarious; meaning is itself categorizable. One document may be categorized in numerous and distinct ways. Multiple documents can also be categorized (at least partially) in the same way.

Meaning can be categorized in some particular manners. For example, a document can be evaluated as making truth claims as part of propositions. The author(s) of the document may say that "all men are mortal." The truth of the proposition is irrefutable; that is, it is in no way contingent upon any other phenomena. A document may also be evaluated according to analyses. Author(s) may examine records in an effort to discover if there ever has been a man [sic] who has not been mortal. The analyses can be evaluated for completeness, coherence, cohesiveness, and other criteria. If analysis omits some potentially verifying (or falsifying) evidence, then it is not complete; if it does not omit the evidence, it can be said to be complete. Complete analyses are not selective. If the analyses successfully meet all criteria, the analyses may have the property of veritism. Goldman (2002) amply asserts that any foundationalism or coherentism must include veritism, or the existence of truth claims (54). The findings of inquiry

can finally be assessed. If all propositions are deemed true, and if the analyses are complete and do not negate any proposition, and if the conclusion is a logical extension of the foregoing, then it may be decided that the conclusion is true. Schaffer (2008) says that, according to Quine, the question, "What is there," can be answered according to the discovery of meaning, properties, and numbers (although not all three are necessary) (348). The example given affirms that something is indeed "there," and presents evidence of what is there.

If we wish to delve as deeply as possible into the metaphysical possibilities of informing acts and objects—and their possible categorization—we can follow van Inwagen (1993) and turn back to the Arche (the Greek word for beginning) (145-47). I will suggest here that the Arche begins with Logos, not out of a Judeo-Christian necessity, but because the likelihood of informing emerging from Chaos would rely on enormous, even incalculable, chance. Informing relies upon semantic, syntactic, grammatical, as well as linguistic pragmatic structure. "Informing" here is used in the root sense of "giving shape to." Informing, then, is ordered, just as the informed (or human agents) possess the potential for order and structure. Even deniers of metaphysics have to cede the existence of the real. Some deniers even do so explicitly in creating schisms between their stated positions and the actuality of their beliefs. For example, Reich (2009) attempts to defend constructivism, but states that "there is no such thing as purely subjective constructions, but constructions and versions of realities are always mixtures emerging from transactions with already existing (cultural and other) realities" (40). The upshot is that the question: What is real, has an answer for avowed metaphysicists and deniers as well. The questionable status of constructivism is aptly put by Gutting (1999) (see above).

6.0 Discussion

While Buckland asserted more than two decades ago that information is a thing, his discourse was insufficient primarily because he did not address why or how informing acts and objects can be (and are) real. In part his assertion fell short because he failed to admit explicitly that the informed, the human agents who read, see, and hear the acts and objects have the capacity, not merely to understand what is written, said, and heard, but to evaluate the properties of reality of those acts and objects. Space prohibits extensive justification for the reality of the agents; thinkers that include McGinn (1999) and Chalmers (1996) offer more than ample evidence of the material reality of the mind. The processes by which human agents make sense from informing acts and objects (words, images, and sound) are complex, but not indecipherable. If one were a strong constructivist one would have to be a strong anti-realist; humans would have to be able to make sense from whole cloth. More importantly, if one were committed to a radical constructivism one would have to be likewise committed to innate abilities to generate internally knowledge of language and all that it entails. Dismissal of radical constructivism does not translate into ready and easy apprehension of the reality of what informs us. That requires learning and effort.

The acceptance of the reality of informing acts and objects does not include acceptance that all linguistic, visual, and sound-based acts necessarily inform. The human actions that intentionally attempt to inform are a species of human acts. The key here is "intentionally." People say and do things that deliberately attempt to mislead, falsify, or dissimulate. Kistler (2000) reminds us that although Dretske recognizes the possibility of "misinformation" (Dretske 1981, 122), this is really a contradiction in terms: by definition, every piece of information is veridical, in the same way in which knowledge is by definition veridical. As he makes clear himself, "false information and mis-information are not kinds of information - any more than decoy ducks and rubber ducks are kinds of ducks …. Information is what is capable of yielding knowledge, and since knowledge requires truth, information requires it also" (Dretske 1981, 45). Dretske's clever metaphors express the essence of informing at least as well as any definition one could find. Disinformation and misinformation are better characterized as lies or dissimulations; at any rate they constitute the antithesis of informing. His metaphor also—albeit somewhat obliquely—captures the metaphysical quality of informing.

While lies are also real, genuine informing acts and objects possess a different species of reality that leads to different consequences. (To note in particular, objects can, of course be images, which present their own challenges for organization; see Mazzocchi (2013).) The consequences may be defined by epistemic communities, but those communities are applying justificatory and veritistic criteria to evaluate the qualities of the acts and objects that affirm to reality and concreteness of them. In other words, what can be categorized as having informing qualities is not an existential decision. The metaphysical status of what genuinely inform humans is something that must be recognized for the field of knowledge organization to progress in a manner that it has desired to move for decades. Uncertainty is not completely removed, but caprice is no longer a feature worthy of consideration.

As Rick Szostok (2012) emphasizes, "the classification of relationships provided here may be of use in the development of upper level ontologies or semantic networks (which are, in turn, of increasing importance as digital technologies advance)" (176). The foregoing pre-

sents a beginning consideration of metaphysics and information; additional empirical inquiry can become integral elements of further investigation.

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