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## **Ways of Being and Ways of Knowing: Heidegger's *The Question Concerning Technology* and Knowledge Organization**

### **Abstract:**

This paper examines some of the problems within the field of knowledge organization that arise from its roots within the Western philosophical tradition, specifically in relation to the technological view of the world as expressed by Martin Heidegger's *The Question Concerning Technology*. It attempts not only to outline the weaknesses of this worldview, but also to provide a path towards expansion and inclusion of a larger variety of worldviews. Given the importance of ontology within Heidegger's philosophy, this paper considers epistemology as rooted in ontology, and attempts to center knowledge organization within ontology. The goal is the development of a human-centered approach to knowledge organization which encompasses the creator and the world of the creator as well as the user and the world of the user, and builds upon community and connections between them. The goal of this approach is to arrive at a philosophy of knowledge organization that can successfully interact with knowledge expressed in a wide variety of forms (tools and works of art in addition to verbal treatises) and from a variety of cultures and socio-economic groups.

"Everywhere we remain unfree and chained to technology, whether we passionately affirm or deny it" (Heidegger 2008 [1953], 311)

### **Introduction**

In Martin Heidegger's 1953 essay *The Question Concerning Technology*, several important points are made regarding the essence of technology and the implications inherent in this essence with regard to human thought and endeavors. The essence of technology described is not anything which is technological, any more than the essence of a tree is found in any particular tree (Heidegger 2008, 311). Rather, the essence of technology is a mode of existence within modern life which not only enables technology (in the modern sense) to exist, but also gives technology the power over the surrounding world. This essence of technology is termed "enframing" (324) by Heidegger, which is in turn defined as when the "actual reveals itself as standing-reserve" (329). In other words, enframing is a way of making things technologically accessible, and there is a close correspondence between this and how knowledge organization attempts to make knowledge accessible. Importantly (and perhaps ironically, given Heidegger's membership in the Nazi Party) Heidegger's essay reveals strong implications regarding the importance of inclusivity and diversity for the field of knowledge organization, and when reading Heidegger's essay from within the framework of knowledge organization, it is possible to begin the development of a human-centered, existentialist approach to knowledge organization.

As the quote at the head of this paper indicates, Heidegger's concern is also not something technological, but is instead human freedom. The goal for Heidegger in examining the essence of technology is to provide a "free relationship" to technology (311). In everything that he writes throughout the remainder of the essay, it is necessary to keep this beginning in mind. Similarly, knowledge organization does not exist merely to impose an organizational

structure upon human knowledge and to keep it in its place, but should exist to facilitate a free relationship between person and person, between the knowledge one person has and the knowledge another person has. At the same time, knowledge organization remains a sort of enframing, given the necessity of providing a skeletal system for organization and retrieval of information.

### **Definitions**

Two terms frequently used by Heidegger should be defined further. The definition of "enframing" in the previous section uses the other term, "standing-reserve," and both of these terms have specialized meanings within Heidegger's writings. Simply put, "standing-reserve" is a term for "resources to be exploited as means to ends" (Wheeler 2018). Heidegger is quite clear that resources includes not only natural resources (although most of his examples are drawn from the world of nature) but can include other resources, including human beings (of course information and knowledge could also be viewed in this way.) Wheeler clarifies that for Heidegger, our seeing everything around us as standing-reserve "defines our modern way of living, at least in the West." Dreyfus (1993, 310) adds that even practices such as "friendship, backpacking in the wilderness, and drinking the local wine with friends" can be mobilized as resources. This could happen, for example, when meeting with friends at the bar becomes a networking opportunity. (The multitude of multi-level marketing schemes geared at selling products to friends illustrates one way in which this happens; friends become resources first and "friendship" becomes merely the means to turn people into sales targets.) It must be noted that Dreyfus writes this before the advent of social media and mobile apps which further reveal the human being as standing-reserve. Apps such as Facebook, LinkedIn, and Tinder (each for various reasons) encourage the view of other people as standing-reserve. As said above, the actual is revealed as standing-reserve through the process of "enframing." It is important to note that enframing is not something which finds its origin exclusively within the human being; Wheeler points out that it is one of several "ordainings of destining," that is, it acts upon the human being just as it acts upon the natural world. It is this enframing which "challenges [the human] to reveal the actual, in the mode of ordering, as standing-reserve" (Heidegger 2008, 325). Of course, the human is also "the active agent of technological thinking" (Wheeler 2018), so this is not a fatalistic ordaining either. Instead, it is similar to the case of the child born into poverty; the poverty is not the fault of the child, but remains a key component of how the child will see the surrounding world and function in the world as time passes, even if the child later acquires some measure of wealth. People (at least in the West) are born into a world in which enframing is the clearing in which the surrounding world (all the people, natural resources, and the like) is viewed technologically as standing-reserve. This phenomenon makes it impossible, or at least extremely difficult, to see the world in any other way.

### **Organization**

This paper will examine two specific areas in which enframing affects aspects of knowledge organization: being and knowing. Following this, a brief path will be charted towards a human-centered knowledge organization that will attempt to preserve the being of

individuals on every point of information dispersal and information seeking behavior, while also attempting to preserve other, non-Western ways of knowing which in particular fall prey to enframing within knowledge organization as it currently exists.

### **Being**

Being itself is the actual, that which is revealed as standing-reserve by enframing. Thus, enframing proves a barrier to seeing the actual. Heidegger uses the example of the Rhine (2008, 321). For generations, the river flowed through the landscape as a river; it was used and bridged, but its nature remained that of a river. The being of the river itself was not changed by being bridged, for the river remained supreme. However, modern technology dams the river and turns it into a source for hydraulic power. The river now has a being that springs from what the river may be used for, not from what the river itself is. And even if the river is preserved within the landscape, this is not so much as a river, but as another sort of resource: a resort for the vacation industry.

This loss of being is not restricted to natural features of the landscape any more than enframing is restricted to the landscape. A forester working in a forest "is made subordinate to the orderability of cellulose, which for its part is challenged forth by the need for paper" (Heidegger 2008, 323). People lose their being as people and become resources. Marginalized or outsider groups may be particularly vulnerable to this phenomenon. Safiya Umoja Noble (2018, 9) highlights that "racism and sexism are part of the architecture and language of technology," and if this issue is to be correctly addressed, it is necessary to understand what it is about the essence of technology that makes racism and sexism such insidious facets of modern society. The deeper problem, as Noble points out (2018, 122) is that as a society, we have allowed large corporations to provide us with information. She (2018, 162) adds that Google's main products are not the various sites that are used on a daily basis, but are the content creators and the users; "We are the product that Google sells to advertisers." The internet in general and social media in particular transform all users into standing-reserve. This occurs as the social media platform or internet conglomerate "collects volumes of personal data" and disseminates it to interested parties (Lamdan 2015, 261-2). The event that precipitated Noble's research (a Google search for Black girls bringing up a pornographic site; 2018, 3 et. al.) clearly illustrates that a root problem, if not the sole root of the problem, is the loss of being as the person is transformed into standing-reserve.

Loss of being takes place on many levels, however, and can be damaging to people from all walks of life. While no one should deny that the primary damage of one of the structures highlighted by Noble is to black girls, the turning of black girls into pornographic resources also causes damage, in a lesser sense, to people of all races and sexes, even beyond the generalized social price that is due when a specific group is transformed to standing-reserve. Is it possible for a person, well-meaning though they might be, who is steeped in the technological tyranny of the culture at large to truly listen and learn from a person who has lost identity in becoming standing-reserve? If not, will not knowledge unique to this group be lost? There is a certain high-mindedness which considers that the background of a person does not matter, only the knowledge that person possesses and which may be relayed to others. This mindset springs from the ideal of a color-blind world, but this world is removed

from the actual world and this is merely another sort of enframing. As everything is transformed into standing-reserve, other cultures and ways of being and knowing likewise are transformed, and become either museum pieces or cease to exist entirely.

### **Knowledge and Understanding**

"Every bringing-forth is grounded in revealing" (Heidegger 2008, 318). Heidegger's etymologically-based connection of truth to revealing provides an important addition to the fields of information science and knowledge organization by demonstrating how the "weak knowledge" mentioned by Frické (2019, 37) can "prove suitable as an account of information." It is possible to relate the Knowledge Pyramid to this principle of Heidegger. That which is brought forth within the realm of the Knowledge Pyramid is wisdom, and the bringing-forth of wisdom is grounded in the revealing arrived at by knowledge; however, the knowledge is not based simply upon factual data that is mediated through true information, but also upon things which might best be termed "cultural knowledge." Frické draws a distinction between know-how and know-that which illustrates the point: know-thats translate, at best, into impoverished know-hows. He uses the example of a game of chess; another and perhaps better example for this current line of thought is that of the unknown bird spied by the boy in Walker Percy's "Metaphor as Mistake" (1975, 71). The boy wishes to know what the bird is called, and is initially given the incorrect answer of "blue-dollar hawk" which is later corrected by his father to "blue-darter hawk." The boy feels disappointed, because "although he has asked what the bird is, his father has only told him what it does." The incorrect name expanded the universe of knowledge and revealed more about the bird than the boy had hitherto seen, while the more correct name of the bird simply confirmed what the boy had seen the bird do, and thereby did not reveal anything about the bird which was not already known.

When truth is imagined as nothing more than correctness, knowledge becomes nothing more than sets of correct information. But truth is more than that. To return to Heidegger (2008, 318), truth is a revealing of the nature of things, a bringing-forth which uses each of the four causes to reveal the nature of things in that which is brought forth. Heidegger discusses the four causes at some length and their relation to the creation of a work, in this case a silver chalice to be used in religious ceremonies. The four causes are each ways of being responsible for something. He describes the various things responsible for the chalice's existence: the silver, the form of a chalice (which in translation is the "aspect (eidos) of chaliceness,") the purpose for which the chalice is made (its telos, which makes it sacred rather than common,) and finally the silversmith, who binds together all of these other areas of responsibility. It is these four ways of being responsible that bring a thing into existence (2008, 314-316). Each of these things has a human element, even the silver, which may be used because of a culturally assigned value. There is no chalice without the idea of the chalice, which does not exist only in the mind of the silversmith, but in the mind of the community as a whole. There is no chalice without the purpose of the chalice (in this case the religious ceremony) which sets the chalice apart in a different way from a similar cup for everyday drinking. And there is no chalice without the actions of the silversmith.

That which is revealed in the silver chalice is not the sole responsibility of the craftsman, nor is the craftsmanship the point of the chalice or the sum total of the knowledge that is communicated by the chalice. Responsibility for the chalice rests not only in the craftsman that took the action to bring the chalice from the silver, but also in the surrounding culture. Hence why a chalice might be termed a "cultural heritage item" even though this term may prove problematic if examined further.

**Figure 1.** Chancay figurine, courtesy British Museum.



Perhaps it would be of some benefit to step outside of familiar cultures, as far as it may be possible. Consider this small ceramic figurine (Figure 1) from the central coast of Peru. This is, similar to the chalice, a "cultural heritage" item. It may be readily asserted (and is asserted by the cataloger) that the item is painted pottery. The description of the item by the British Museum is reasonably detailed. Yet even if we were able to use emerging technologies to carefully examine every atom of the figurine, even if we were able to learn something of the potter and the artist by a more careful examination of their technique, would it be possible for this item to reveal to us the same knowledge that it would have revealed to the Chancay when it was made? It is possible to group all items such as this ceramic figurine under the umbrella of "cultural heritage items" and by so doing, relieve ourselves of any necessity of learning what might be revealed by them. The maker of this item possessed a knowledge of the surrounding world, and saw that world revealed in wildly different ways than the technological standing-reserve.

Perhaps this can be illustrated by looking at a more familiar cultural heritage item. Consider the Russian icon of the Holy Trinity painted by Andrei Rublev (Figure 2). Within the cultural context of Christendom, Russia, and Western history, we know that this image is both a depiction of the angels visiting Abraham (described in Genesis 18) and a depiction of the Holy Trinity. The sheer amount revealed in this image is astounding, and this is possible

because we know about the creator of the image and the culture in which the creator lived. Therefore, this image is approached as something less foreign. If we imagine that we do not know any of the background, that all copies of the Bible have vanished not only from the face of the Earth but from popular memory, and that the concept of the Trinity likewise has vanished, what do we see? We see three figures, not painted realistically, and the artwork appears as primitive and communicates to us as little as does the Chancay figurine. The Chancay figurine is removed from the people who created it, and the knowledge they had has vanished. The existence of the figurine points to a gap in our knowledge, a gap which itself needs a place within our organizational matrix, so that awareness of the gap is not lost.

**Figure 2.** Rublev's Icon, courtesy Russian Wikipedia.



What the Chancay figurine and the Russian icon have in common is that both are products of an understanding of the world far different from the standing-reserve. Dreyfus (1993, 295) contrasts the Styrofoam cup with a traditional Japanese teacup. Both are products of how the surrounding world is understood. The Styrofoam cup is the logical result of a view of the world as resources to be used and discarded when they are finished serving their purpose, while the Japanese teacup arises from a different view of the world. But the difference is more profound and cuts to the core of being: "the practices containing an understanding of what it is to be a human being, those containing an interpretation of what it is to be a thing, and those defining society fit together." In other words, the social practices of using Styrofoam both feed off of and feed into a society that views other people as standing-reserve. The Styrofoam is symbolic of a certain social knowledge, just as the figurine, the icon, the Japanese teacup, and the "blue-dollar" hawk are social knowledge. Organizing this social knowledge may be the most difficult part of knowledge organization, given the high level at which this knowledge exists (Rafferty 2019, 7), but it may also be the most important task of

knowledge organization in coming years. Whether or not it is possible to classify the intrinsic meaning of cultural knowledge, it is at least possible to note the gaps.

When knowledge is distanced from knowing people, the result can be viewing knowledge as standing-reserve. Libraries should recognize this, as they are generally quick to point out that there is a considerable difference between a trained librarian and Google. In the popular sense, both point to information. However, the librarian has the potential (as of yet largely unrealized in the digital realm) to provide contextualization for the information and thereby provide knowledge, in a sense. To return to the image of freedom which prefaced this paper: we are unfree in our relationship to information when information ceases to be a knowing-revealing and instead becomes a collection of information advancing apace and carrying all before them. A free relationship with the knowledge of the other, just as a free relationship with technology, requires an openness of our existence to that which is beyond us.

Of course, libraries have been far-from-perfect organizers of knowledge in the past, and doubtless will continue to struggle with this in the future. Part of this is likely endemic to the very project. Noble (137) points out that classification systems "are part of the scientific approach to understanding people and societies, and they hold the power biases of those who are able to propagate such systems." And any attempt to remove the possibility of offense or mischaracterization of the other can lead to the erasure of the other. We can look at Rublev's icon and learn the world revealed through it because people within that culture have a seat at the table; we can only conjecture regarding the Chancay figurine because the Chancay had no seat at the table, their worldview was not regarded as worthy of preservation, and their knowledge is lost.

### **Human-Centered Knowledge Organization**

Nothing said above should be new to anyone. There have been many laments about the loss of indigenous cultures. People realize that modern technology demands control over everything to the extent that people become standing-reserve (Shilling and Mellor 2007, 534). But what is the task of knowledge organization in this? How can we prevent the transformation of the other into standing-reserve, and preserve, to the fullest possible extent, the being and the knowledge of the other? The solution may be a philosophy of knowledge organization that recognizes the existential humanity of the creator and the user. Such a philosophy might be termed "human-centered" as opposed to "user-centered" philosophies with their focus on the end-user, which might obscure the creator. This view of knowledge organization considers things to be organized as naturally having a variety of levels of meanings such as those highlighted by Rafferty's article on image indexing (2019). In addition to providing a more phenomenological and humanist view of items, this might also prove a helpful solution to the problem highlighted by Szostak (2017, 496) that different groups attach different meanings to the same artifact.

The goal of such a philosophy would be to provide a path towards authentic diversity. Rather than including only the knowledge of middle-class or well-educated people of diverse races, there must be a place for the knowledge of the homeless veterans of America, the villagers of Ethiopia, and the women of Saudi Arabia. Their knowledge must not be presented as other, but as authentic and valid ways of revealing the truth of things. These groups (among

many other groups) have been marginalized in the past (since they had no means of recording their knowledge, there was no great concern for organizing it) but as connectivity becomes more commonplace, their knowledge may also be recorded in some form, and thus any schema for knowledge organization much have a place within it for such knowledge. Furthermore, a human-centered philosophy of knowledge organization should emphasize the being and complete humanity of lost cultures, even if the only possible way to do so is to highlight the lacunae.

A human-centered philosophy of knowledge organization should also emphasize the humanity of human subjects and human peoples. The phenomena described by Noble are a clear example of the transformation of the other into standing-reserve, where the very existence of black girls is turned into a resource for use. This is one weakness of user-centered philosophies, because users are capable of teaching algorithms to objectify the other in this sense, and if organizational structures do not contain within themselves a means to preserve the existential subjectivity of the human person, they can easily fall into objectification and reveal the other as standing-reserve. "Rather than prioritiz[ing] the dominant narratives, Internet search platforms" as well as any knowledge organization structure, "could allow for greater expression" (Noble, 152).

The goal of knowledge organization should be to promote a free relationship not only to technology, but to knowledge. A free relationship to knowledge includes a free relationship, as much as possible, between people. "The four causes are the ways...of being responsible for something else" (Heidegger, 314). A deeper understanding of all of the causes of the thing to be classified or organized provides the grounding for a free relationship with it, and makes it possible for people of the present to learn more fully from people of the past, and for people of one culture to learn more fully from people of another. With the recognition and the caveat that the idea of the four causes springs from Western philosophy and may not cover every eventuality, is it possible to use the four causes as the basis for a classification scheme that retains the humanity of the creator and the user?

In certain ways, description based on the four causes is not substantially different from what is already done with cultural heritage items. Taking Rublev's icon (Figure 2) as an example, here would be a basic description for it based on the four causes:

- Material: canvas, wood, paint
- Creator(s): Andrei Rublev, with additions and alterations by others.
- Formal description: tempera painting of three young winged male figures seated at a table. Table contains a chalice with a calf's head visible inside it. Tree and house are visible in background.
- Purpose of item: Painting is an icon, sacred within the Eastern Orthodox tradition and intended to be used in worship. Depiction is a rendering of the three visitors to Abraham described in Genesis 18, but is used within the Eastern Orthodox tradition to depict the Christian God.
- Contrast this with the same descriptive format for the Chancaay figurine, adapted from the British Museum's description:
- Material: Pottery

- Creator(s): Unknown artist from South America, between 10th-15th centuries.
- Formal description: "Small ceramic figurine; arms upheld at sides, patterned head covering. Cream with black pigment outlining features and head cloth. Holes pierced in sides below arms and in each ear."
- Purpose of item: Unknown.

If the use of the four causes in this way is to have the desired effect of highlighting gaps in our understanding, it is necessary to include each of them in every description, even when one is unknown. Of course, many other descriptive fields could and should be added; these examples are only to illustrate the usefulness of the four causes in highlighting disparities in description.

Knowledge organization does more than connect one person to another person, and far more than simply connect one person to disembodied ideas. Ideally, it provides a connection from one people (even an ancient people no longer on the face of the earth) to another people. It should provide the means of bringing together various cultures in ways that do not negate their unique attributes or marginalize their knowledge. That is ultimately how knowledge organization can become more human.

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