

# Ethical Issues of Knowledge Organization in Designing a Metadata Schema for the Leo Kottke Archives

Kelli McQueen

School of Information Studies, University of Wisconsin-Milwaukee,  
NWQB 2025 E. Newport Street, Milwaukee WI 53211, U.S.A.,  
<kamcquee@illinois.edu>



Kelli McQueen is a PhD student at the University of Illinois, Urbana-Champaign. She holds an MLIS and an MM in music history and literature from the University of Wisconsin-Milwaukee.

---

McQueen, Kelli. **Ethical Issues of Knowledge Organization in Designing a Metadata Schema for the Leo Kottke Archives.** *Knowledge Organization.* 42(5), 332-338. 14 references.

**Abstract:** Designing a metadata schema for the Leo Kottke Archives presents an interesting case study on the ethics of archival representation in a digital environment. This paper discusses three significant values shared between the archivist and artist: fair representation, accessibility, and control. Fair-representation explores the concept of authenticity and the need for an ontology suited specifically to music and finger-style guitar. Accessibility is important to both the archivist and artist: to see information creative works widely circulated. Digital access promotes wide dissemination, but makes uses more difficult to control. Beyond moral values, this last value of control has significant legal implications because of copyright. The archivist must find solutions to ethical questions of the individual's right and the good of society when seeking a balance between access and control.

---

Received: 20 July 2015; Accepted 24 July 2015

---

Keywords: knowledge organization, metadata schema, Leo Kottke Archives, music, works

---

## 1.0 Introduction

The artist and the archivist both operate from a particular philosophical stance, which influences the nature of their work. These philosophies contain values that engender moral implications, and can be viewed as ethical codes to the degree that they shape the behavior and the roles artists and archivists play in society. The following paper discusses three common values among between artists and archivists: fair representation, dissemination, and control of intellectual property. While on a broad level these values are shared, they can generate conflicting interests as the roles of these two characters overlap.

How these values unfold amid structures of knowledge organization (KO) in the context of metadata designed for the Leo Kottke Archives. As a case study, the Leo Kottke Archives presents a distinctive perspective on ontology for

musical works because finger-style guitar occupies an indeterminate space on the spectrum between fixed written works and oral tradition/improvisation. This, in turn, impacts the intended uses of the Leo Kottke Archives, and how KO structures may best support use of the collection.

## 2.0 Representation

The artist and the archivist share common job traits when their roles are approached from the philosophical framework of humans as moral beings. The artist creates symbols which reflect their vision or understanding of the world—their particular aesthetic. Art is a symbol that represents the range of human experience. Information specialists such as archivists also create symbolic representations when organizing resources under their supervision. For those in the archival profession, fair represen-

tation is endorsed as a moral obligation. In digital archives, representation is accomplished through metadata, often called “surrogate records,” that stand in place of the items they describe. When these items are part of the cultural heritage, they can be viewed as symbols of symbols. The following sections discuss the ethics of art in literature and music, how an ontology specific to musical works is necessary in KO, and how the Leo Kottke Archives contains multiple instances of musical works.

### 2.1 Ethical Art and the Artist

The Leo Kottke Archives is a repository dedicated to collecting and preserving items related to the career of Leo Kottke, a guitarist whose skill as a performer and composer revolutionized what is now known as finger-style guitar. In addition to being a musician, Kottke is a contemplative, which is seen in his writings and his storytelling onstage. His keen interest in literature as well as music provides an example of an artist invested in representation. A brief tour into ethical views presented literature and music throughout history and by Kottke’s own writings provides a useful preamble for fair representation in knowledge organization.

John Gardner (1979, 4) stated that, “True art is by its nature moral.” Even if art is not explicitly dealing with ethics in terms of how society defines goods and bad behavior, art still represents underlying values of its creator. When asked for suggestions on sources pertaining to ethics, Kottke recommended *Joseph Conrad: Giant in Exile* by Leo Gurko. Gurko presents Conrad’s works in the context of his own life experiences as a sailor and expatriate who not only exposed himself to revolutionary ideals of countries beyond his native land, but also participated in these revolutions. Gurko (1962, 2) affirms from the evidence of Conrad’s life and works, a shift in moral thinking from clear black and white morality of religiosity into the devotion of Romantic ideology and the more ambiguity in the early modern period in terms of ethics when he writes, “Conrad was neither ambiguous or unclear, but he was elusive ... His moral complications demanded close and attentive involvement ... Even as he was affirming the necessity of traditional ideals—fidelity, courage, work, duty—he was questioning whether they were enough to stave off corruption and defeat.” The struggle between being true to ideals and their practical application in real life is the essence of ethical dilemmas, because it is only our actions that can be ethical as opposed to thoughts, beliefs, or intentions. Roberta Brody (2003) stresses that actions are the only things that can be judged ethical or unethical and the objective of ethical codes is to ensure that actions do not violate given values.

Uncertainty and doubt enter the picture when actions conflict with values, or perhaps a particular situation places two values in conflict with each other. In a compelling personal essay titled “Trombone,” Kottke references the concept of “negative capability” from a letter John Keats wrote Dec. 21 1817, “What quality went to form a Man of Achievement ... I mean negative capability, that is, when a man is capable of being in uncertainty, mysteries, doubts, without any irritable reaching after fact and reason ...” Keats’s “man of achievement” is not merely the artist or musician who has acquired a set of skills, accomplished a number of performances, or cultivated fame, but the one who has persevered in the face of doubt, the acceptance of limits of humankind’s knowledge. I would like to suggest that this reluctance to give “fact” ultimate supremacy is an important ethical value for knowledge organization because KO systems are symbolic representations that require interpretation. The human element in communication shifts socially accepted values with each new generation not to mention each new individual.

The interplay between the individual and society leads us to another concept closely linked to how an art represents life and how the artist represents himself/herself. Gardner references the common stereotype of an artist’s role—engagement in society versus social isolation. “On the one hand we say (or used to say) the artist should hold up ideals for imitation, he should inspire all humanity to certain qualities of action; on the other hand, the artist today is often considered interesting mainly for his oddity.” The first half of this quote expresses an aesthetic that reaches back to ancient Greece. In the *Republic*, Plato expressly states the social benefit of music, as he promotes the use of the Dorian mode over all other modes as it inspires men to patriotism and being good citizens. More recently composers such as Paul Hindemith want their music to serve an educational purpose or specifically design utilitarian works that can be used by anyone (*Gebrauchsmusik*).

Other trends to free art from overt social relevance still express a philosophical stance or statements of the artists’ values. In the nineteenth century, absolute music strove to be “pure” instrumental music, intended to be completely non-referential and autonomous from any social function. Yet labeling such music “abstract” is an interpretation that conveys meaning. The semiotic equation places the artist on one side—creating and exercising a degree of control over their creation, and the audience on the other side—consuming, interpreting, and otherwise incorporating or appropriating meaning for their own purposes.

The separation between the audience and the artist can sometimes seem like a widening untraversable gulf. Gardner says the oddity of the artist is often what intrigues us. This is more pronounced in the performing arts like music, where the artist must present a persona

that shows that he or she is not ordinary through virtuosity, personal suffering, or eccentricity while at the same time appearing “authentic.” A significant element of Kottke’s reputation, for example, is an unassuming yet witty sense of humor. He speaks of his faults and foibles with a calculated transparency that charms and amuses his audience. His on-stage presence is at once confident, knowledgeable, forthright while accomplished through a reluctant gaze.

One aspect of the artist-audience relationship that greatly impacts an artist’s success is presenting an authentic persona. As a solo performer, there is a lot of pressure to appear authentic in expressivity and musicality especially if you compose the music you perform. In the musical world, there is much debate over this what this means and if it is even possible. Performance practice, for example, was a movement that gained momentum in the 1980s that popularized playing early music on period instruments in order for the performance to sound as the composer originally intended. Since then, scholars and critics have questioned how realistic it is to think we can reproduce the “original” sound since we do not really know how things sounded before recording technology. Now scholars call these attempts “historically informed” performances and shy away from the word authentic.

Authenticity is also a divisive term in popular music separating artists who produced purely “commercial” music from those artists who consider their music above such things and, therefore, more authentic. In the 1990s grunge scene, the bands Nirvana and Pearl Jam had a well-known conflict over who “sold-out” and went “mainstream” and who was authentic. The intention of the artist and the function of the music should play a part in judging the authenticity of the music, but ultimately, artists are only accountable to themselves for determining their commitment to their own values and how they present themselves as performers. The job of the archivist, however, requires interpretation of these works so representation and authenticity have different implications in knowledge organization.

## 2.2 Archivists and Fair Representation

Just as the artist’s devotion to his/her values results in symbolic representation in art, so does the information specialist create symbols and structures that are representative. There is a significant difference between the artist and archivist approach to representation. Some artistic philosophies walk a middle ground in terms of how capable symbols are at representing life. ‘Jean-Jaques Rousseau states...like any other art, music imitates the real world, but in a specific way: it ‘will not represent things directly, but will arouse in the soul the same impulses that

we feel at seeing them’’ (Kundera 1995, 64). But the archivist seeks to be as direct and as straightforward as possible in fair-representation. One of the core values in the Society of American Archivists (SAA) Code of Ethics is fair-representation defined as representing an item as authentically as possible in order to facilitate and control the flow of information.

The concept of *res ipsa loquitur* or letting the “thing itself speak” implies a degree of objectivity in role of the information professional. While it is easy to accept a scientific model for information organization that claims unbiased objectivity, this overlooks the act of interpretation involved in designing organizational structures. Metadata, for example, performs a symbolic function as it represents resources in a digital environment. Brody argues that metadata contains both implicit and explicit values of its creators in the same way the original information does. In the case of finding the bibliographic information of a book, for example, using only the title page means that the object is represented by the publisher’s point of view not the author’s who may have different objectives in portraying the information in that way. In the case of materials in the Leo Kottke Archives such as flyers and photographs, there may not be a discernable title or creator and the metadata designs must grapple with how to fill the gaps or if they should be filled. Furthermore, the nature of musical works and the prodigious variety of ways they can manifest as items in a collection makes them especially complicated to collocate and disambiguate.

## 2.3 Musical Works and Uses of the Leo Kottke Archives

As aesthetic philosophies shape the kind of works an artist creates, knowledge organization systems are constructed upon an ontological foundation. Both are colored by prior commitments/belief systems/ ideologies. Richard Smiraglia (2002) describes the bibliocentrism of libraries whose focus primarily is on books. Organizational systems built around the book as the carrier of semantic content do not necessarily function as well with musical works, which have much less of a fixed character and take on a wide variety of different instantiations. As a realization of a work at any given time, embodied in physical form, instantiations historically have been classified by genre, type, kinds, or classes.

Rather than using typologies of this nature found in libraries or the marketing of musical recordings, Stephen Davies argues for an ontology of musical works based on the concept of performance. Davis defines a musical work as “a prescribed performed sound structure” (2001, 97). Based on this definition freely improvised music would not be consider a musical work because it is spon-

ca. 1976

A	A <sup>1</sup>	B	A <sup>3</sup>	C	D	C <sup>1</sup>	B	A <sup>4</sup>	A <sup>1</sup>	A <sup>2</sup>
main riff 12	slide to 5 11+2/4	blues riff 16	variation on D 16	“noodle” 12	“liquid” 10	“noodle” 8	4	reverse bend/slide to 5 12	octave 8	

ca. 1990

A	A <sup>1</sup>	A <sup>2</sup>	B	A <sup>3</sup>	C	D	C <sup>1</sup>	E	F	E	F	B	G	C <sup>1</sup>	B	A <sup>4</sup>	A <sup>1</sup>	A <sup>2</sup>
main riff 16	slide to 5 12	octave 11+2/4	blues riff 12	variation on D 16	“noodle” 16	“liquid” 8	“noodle” 8		“disco” 28		“disco” 28		development on blues riff/ling A 4	“noodle” 25		reverse bend/slide to 5 12	octave 12	

May 27, 2014

A	A <sup>1</sup>	B	A <sup>3</sup>	C	E	F	F	H	A <sup>5</sup>	A <sup>1</sup>	A <sup>2</sup>
“noodle” 8	slide to 5 11+2/4	“blues” 12	variation on D 16	“noodle” 16	24	“disco” 28	“disco” 28	“Bob Fink” 13+3/4+20	reverse bend/slide to 5 12	“noodle” 12	octave 17

Figure 1. The Structure of “Airproofing” (© Stropes Editions, Ltd., used with permission)

taneous and unguided, not intended to “instance” a work since it is not meant to be replicated. Furthermore, Davies says that some music may be intended for playback rather than performance, which complicates his boundary lines between music that is a work and not a work.

The concepts of composition and improvisation are also not as simple and antithetical as Davies presents them. On one end of the spectrum, the composer notates the musical ideas for another person to play. The preconceived intellectual content of the work is conveyed through a written document whose musical content cannot be realized until it is intoned by a performer. On the other end of the spectrum the composer and the performer are the same person and act of creation of the work occurs at the moment of the performance.

These extremes are by no means the only way musical works are made however, and works can have a lifecycle that includes development through many instances. A performer/composer like Leo Kottke, for example, creates a piece and refines it through evaluating audience reactions in performance. He makes alterations to his pieces according to “what works or doesn’t work” for the audience as he thinks back on a particular performance.

Kottke’s music participates in a living oral tradition because he has been performing many of his songs for nearly fifty years. One example of a piece with a complex content genealogy is “Airproofing.” First released on the album *Leo Kottke* in 1976, “Airproofing” was recorded on the steel-string guitar, and overdubbed with a nylon string guitar as Kottke was coping with injuries from overplaying with fingerpicks. Figure 1 compares the structure of the 1976 version with two later versions (1990; 2014). The first recording was the shortest with four contrasting sections (A, B, C, D). By 1990, he had added three new sections (E, F, G). In 2014, Kottke replaced the G section with new material H, in preparation for the Leo Kottke Guitar Workshop that summer he told director John Stropes that he “finally figured it out.” Stropes has worked with Kottke for many years publishing transcriptions

of his music and says that “Airproofing,” like many of Kottke’s songs, it never does pin itself down. This raises the question: how similar does the intellectual content have to be for it to be the same work?

In addition to the work itself evolving, music works can have many different content types leading to different expressions. The Leo Kottke Archives has studio recordings and live audio recordings, on different carriers: reel-to-reel, audio cassettes, and LPs. They also collect video recordings from an array of formats dating back to 1976 (e.g. beta, VHS, digital, etc). Sometimes a single performance is recorded on several cameras, shooting different angles to capture how Kottke is using both his hands while he plays. These shots fulfill one of the main functions of the archives, that is, pedagogy.

Closely related to the pedagogical endeavor is another current use of the archives: transcription and publication of written versions of Kottke’s pieces. While the notation of music in the Western art music tradition has been standardized for approximately 300 years, it is not ideally suited to capture certain types of music or instruments. The guitar is a prime example because its distinctive shape/construction is better suited for tablature style notation. Unlike standard notation, which represents the sound of the music itself, tablature is designed to show the musician how to locate the sounds on the instrument. Tablature was used extensively in the sixteenth century for popular instruments such as the lute and guitar. The morphology of these plucked stringed instruments was constantly in-flux; the number of strings and tunings were not standardized; and many musicians did not read standard notation. Tablature addressed these all of these issues, but fell out of favor as the popularity of the lute and guitar declined in the eighteenth century (only recently revived for guitar in the mid-twentieth century).

John Stropes and the UWM finger-style guitar department are committed to producing high-quality transcriptions. This process often involves inventing new ways of writing tablature because modern guitar music employs ex-

tended techniques that have never before been assigned written symbols. When the creator of the musical work “the composer” is different than the transcriber, there is a significant amount of interpretation required to translate the performance onto the page. The ontological framework for why these two types of notion are different presents an interesting debate over the intentionality and function of writing music down. It can either be prescriptive or descriptive, although both theoretical approaches present another layer of representation to musical works.

Stropes and the UWM finger-style guitar department take a comprehensive approach to creating transcriptions of composers like Kottke because their aim in representing this music on paper is twofold: an intellectual understanding of the work and its relevance, and teaching guitarists to play the pieces. These two sides of the academic coin rely on an ethical approach to representation.

### **3.0 Dissemination and Accessibility**

In addition to authenticity and fair representation, the ethical code for archivists gives primacy to accessibility. “Access and use” appears first on the list of core values published in 2011 by the Society for America Archivists (SAA), to “promote and provide the widest possible accessibility of materials, consistent with any mandatory access restrictions.” This list of values provides the foundation for their set of seven principles that make up the Code of Ethics for Archivists (revised 2012). The juxtaposition of access/use and restriction/privacy is interesting in the ordering of this list because these two principles are the most likely to conflict and cause situations with ethical gray areas as in the case of the Leo Kottke Archives. The following sections will discuss issues of accessibility in digital archives and section four will deal with privacy and control of intellectual property.

One of the unique characteristics of the archival approach to organization is a hierarchical arrangement designed to protect the provenance of the collection. Each document or item is thought to have a “natural place” in its own right, in a filing unit, a series, a record group, and more broadly, in the depository. This hierarchical system protects provenance and the relationships of the documents to one another. United States’ National Archives professional code highlights the archivist obligation to make holdings known through published finding aides. Since the digital environment favors item-level metadata, however, the context provided by finding aids can be easily lost or hidden in online search systems. Jane Zhang (2012) conducted a study of 27 digital archives and found three overall approaches to combining metadata and hierarchical structure: the embedded model, the segregate model, and the parallel model. While not yet widely used,

the parallel model seems like the best compromise to balance the needs of an archives and the way the digital environment functions because links each digital item directly to the finding aid and at the same time allows for searching/browsing by metadata fields.

The flexibility of metadata schemas belies the inverse relationship between interoperability and the ability to fit the specific needs of the collection. The more similar fields are among different collections in the digital environment, the more information can be shared between different collections in the act of searching. Ethical codes become manifest in “best-practices” and standards designed to motivate carrying out the best possible work. Daniel V. Pitti (2004, 12) discusses the importance of standards in forming communities and allowing different communities to coexist, to “cooperative build and share enduring works.” In the global environment of the internet, sharing information or interoperability with other systems is a primary concern.

However as Brody (2003) points out, standardizations may not suitably represent unique aspects of a collection, and controlled vocabularies may privilege certain languages or perspectives over others. Various guitar tunings is one example of information that needs to be searchable for the Leo Kottke Archives but is rarely found elsewhere in music collections. Most music in the Western art tradition follows a precise standard for tuning that is taken for granted in standard notation. For this reason, the “Description” or “Notes” fields, recommended in metadata schema is particularly pertinent for the Leo Kottke Archives.

### **4.0 Control**

Control of information both allows and limits accessibility, and the ethical implications of control can be easily overlooked in the enthusiasm for making information accessible through KO systems. On one hand, accessibility evokes the feeling of liberation; making information as available as possible. On the other hand structures limit and contain information. As Pitti (2004) stressed, structure is the framework for exactly how information can be located; thus control must be approached with serious eye for ethical conflicts. The SAA Code of Ethics (2012, 4) addresses control and access under the same principle stating that archivists should, “minimize restrictions and maximize ease of access,” making sure the restrictions are suitable, documented, equitably enforced according to the stated institutional mission and intended user groups. The SAA’s principle of “Access and Use” ends with an exhortation to archivists to look for practical solutions that balance the conflicting interests like access and restriction.

For the Leo Kottke Archives, this is a weighty subject still being wrestled with. Often artists prefer their unfin-

ished or juvenile works not to be made available publicly. Franz Kafka, for example, asked his friend Max Brod to burn his unfinished stories after his death. Instead Brod finished the novels himself and had them published. While an artist is still alive, they still exercise control over these works, and the SAA Code of Ethics places the responsibility on the researcher to consult issue of privacy with the “community of origin” of the collect. Out of respect for sensitive materials, the archivists should encourage the researcher to do this. In practice this meets the requirements of heading off future legal difficulties, but the deeper ethical dilemma remains concerning the privacy of the individual and the broader benefits for society of having access to knowledge.

The rights of the individual versus rights of society is a question information professionals often face. Librarians support privacy of individuals in terms of what information and items they seek, and the rights of society to freely access any kind of information. Archivists “place access restrictions on collections to ensure that privacy and confidentiality are maintained, particularly for individuals and groups who have no voice or role in collections’ creation, retention, or public use” (SAA 2011). Dean Seeman (2012) deals with the ethical issues of whether people want to be identified with an object as it is depicted online. Seeman discusses how the field of journalism deals with giving names of people in photographs, and compares this to the ethical issue of listing names in digital collections. In journalism they use the concepts of public versus private space; if one is acting in public, the notion of privacy has less bearing. If we use this concept in regards to professional performers, a similar conclusion can be made. A degree of anonymity is sacrificed when one is a performer and reaches a certain level of fame.

Additionally, one of the goals of the Leo Kottke Archives is to promote research pertaining to history and cultural heritage of finger-style guitar. Restricting certain information may impact how history and culture are understood. Therefore, ethical choices in balancing the rights of the individual and of society, as Seeman advocates, must be driven by the context of specific situations.

Legal considerations like copyright laws are also designed to strike a balance between protecting the rights of the individual’s intellectual property and the rights of society to use works and to be inspired by them to create new works. Historically, music copyright laws have protected the economic interests people other than the artist (e.g. publishers, recording companies, etc.). However the most recent law, the Copyright Act of 1976, added provisions that support the author’s control of their works more than in the past. For a work to be eligible for copyright it must display the three characteristics of originality, expression, and fixity. As we saw earlier, the idea of

fixity and expression in music can become mired in theoretical musings, but for the information professional fixed expressions are the content of collections and necessity behind organizational systems. Thus, copyright is something archivists must always be aware of when they consider how their collection might be used, and to ensure that users are also aware of what constitutes fair-use.

For the three main uses of the Leo Kottke Archives (notation, pedagogy, and historic research), are all areas of fair-use. Stropes works closely with Kottke, to ensure the UWM guitar department has his permission to use the material in the way that suits their goals, and that he is comfortable with the quality of their work, and how his image is presented. This meets and perhaps goes beyond, the SAA statement of core values to serve the needs of users and stakeholders, including the rights holders.

## 5.0 Conclusion

In sum, KO structures such as metadata schema are built on systems of representation. Metadata represents an item, and when the item relates to music or other cultural objects, it is essential to develop an ontological approach suitable for these specific areas. Viewing art as representational can assist in a deeper understanding of musical ontology.

Other ethical issues that arise in creating metadata for the Leo Kottke Archives pertain to access and control. The artist is interested in dissemination, but also has a stake in how access is approached and how people use access to their works. Additionally, the art has a right to control use so that they can reap the benefits of their works. The archivist has the ethically challenging job of balancing access and control for parties with occasional conflicting interests. The last principle in the SAA Code of Ethics is “Trust,” a belief that the archival community is committed to finding creative and fair solutions to dilemmas as, “They strive to balance the sometimes-competing interests of all stakeholders” (SAA 2012, 5). The struggle to derive an ethical course of action against feelings of uncertainty (e.g. negative capability) is part of the re-evaluative process that every KO system needs periodically.

## References

- Brody, R. 2003. “Information Ethics in the Design and Use of Metadata.” *IEEE Technology and Society Magazine* 22, no. 2: 34-9.
- Davies, Stephen. 2001. *Musical Works and Performances: A Philosophical Exploration*. Oxford: Clarendon Press.
- Demers, Joanna. 2006. *Steal This Music: How Intellectual Property Affects Musical Creativity*. Athens: University Of Georgia Press.

- Gurko, Leo. 1962. *Joseph Conrad: Giant in Exile*. New York: The Macmillan Company.
- Hirtle, Peter B., Emily Hudson and Andrew T. Kenyon. 2009. Copyright and Cultural Institutions: Guidelines for Digitization for U.S. Libraries, Archives, and Museums. Ithica, NY: Cornell University Library.
- Kundera, Milan. 1995. *Testaments Betrayed: An Essay in Nine Parts*. New York: Harpercollins Publishers.
- Moser, David J. and Cheryl L. Slay. 2012. *Music Copyright Law*. Boston: Course Technology.
- Pitti, Daniel V. 2004. "Encoded Archival Description: The Development of an Encoding Standard for Archival Finding Aids." In *Encoded Archival Description: Context, Theory, and Case Studies*, edited Jackie M. Doolley, 7-22. Chicago: Society of American Archivists.
- Seeman, Dean. 2012. "Naming Names: The Ethics of Identification in Digital Library Metadata." *Knowledge Organization* 39, no. 5: 325-31.
- Smiraglia, Richard P. (2002). "Musical Works and Information Retrieval." *Notes* 58: 747-64.
- Smiraglia, Richard P. 2007. "When Is a Terracotta Hut Urn Like a Sailor's Deck-Log? Meaning Instantiated across Virtual Boundaries." In *Museums and the Web 2007, 11-14 April 2007, San Francisco, CA: Selected Papers from the Conference*, edited by J. Trant and D. Bearman. Toronto: Archives & Museum Informatics. Available: <http://www.archimuse.com/mw2007/papers/smiraglia/smiraglia.html>.
- Society of American Archivists (SAA). 2005. *Code of Ethics for Archivists*. <http://WebArchive.Org/Web/20110725013613/Http://Www2.Archivists.Org/Code-Of-Ethics>.
- Society of American Archivists (SAA). 2012. *SAA Core Values Statement and Code of Ethics*. <http://Www2.Archivists.Org/Statements/Saa-Core-Values-Statement-And-Code-Of-Ethics>.
- Zhang, Jane. 2012. "Archival Context, Digital Content, and the Ethics of Digital Archival Representation." *Knowledge Organization* 39: 332-39.