

# Concepts of Record (1): Evidence, Information, and Persistent Representations

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## Abstract

The meaning or meanings of *record*, and the relationship of records to other concepts such as *evidence* and *information*, are continuing subjects of debate. This paper examines statements about the nature of the record made by writers and practitioners within the archives and records management community, and it identifies some of the ways in which understandings and emphases vary. After reviewing different attitudes to definition and the perception of meaning, it discusses the challenges of defining records in terms of evidence or information, and suggests that archivists and records managers may prefer to consider evidence and information as two of the many affordances that records provide to their users. It concludes by exploring the concept of *representation* and proposing an alternative characterization of records as persistent representations of activities.

Definitions have had a bad press in recent years. Many philosophers and cultural theorists no longer believe in them. Many linguists are unsure of their value. In archives and records management, as in many other professional disciplines, writers and practitioners debate how far it is possible to provide adequate definitions of the key concepts with which the profession is concerned. The question “What is a record?” troubles archivists and records managers, just as questions about the meaning of art, or literature, or artificial intelligence, preoccupy specialists in other fields. Consensus is often sought, but seems impossible to reach: not only because of disagreement about what a particular term might mean, but also because of increasing uncertainty about whether definition itself is meaningful.

A difficulty long recognized is that definitions are interdependent. No term can be defined without using other terms that must also be defined. With the decline of positivism and essentialism, doubts have grown and many scholars question whether language has the capacity to provide a reliable means of capturing the identity or the meaning of things we encounter in the world.

The schools of thought commonly described as “positivist” claim that the truth or falsehood of propositions can be verified using the tools of logic or empirical observation, and that concepts and phenomena have distinctive and unchanging identities. These views have been increasingly challenged. In his *Philosophical Investigations*, published posthumously in 1953, Ludwig Wittgenstein sought to show that the meaning of words and concepts is not absolute, but is determined by social custom and by the way that words are used.<sup>1</sup> Since the 1970s, various forms of constructivist and relativist thinking, largely derived from European social philosophy and often loosely but conveniently labeled as “postmodernism,” have become prevalent. All are strongly antipositivist and insist that there are no scientifically verifiable facts; language, or text, is often posited as the limit of intelligibility and critical inquiry.

In the postmodernist frame of reference, all definitions are dangerous. They are seen as illusory, as chimeras of objective and uncontested truth, seeking to enforce a single dogmatic interpretation of phenomena that offer multiple and variable meanings. Postmodernist writers commonly argue that no meanings exist independently of human experience; all we can hope to find are interpretations answering to particular social or cultural needs. There can be legitimate parallel conceptions of the same phenomenon, and these are not fixed, but vary over time and across cultures, languages, and contexts of inquiry.

The earliest stronghold of these ideas was literary criticism, whence they have spread to achieve a wide currency across the humanities and social sciences. They first came to the notice of archivists in the 1990s and have been voiced more loudly in archival literature in the new millennium.<sup>2</sup> To take just one of many recent examples, Victoria Lemieux’s 2001 study of attitudes to records and recordkeeping in the Jamaican banking sector is prefaced with the statement that “there is no one true conceptualization of the record, but . . . many different conceptualizations . . . arising from particular social contexts.”<sup>3</sup> Postmodernist thinking permeates the work of Brien Brothman, Terry Cook, Verne Harris, and Tom Nesmith, among others.<sup>4</sup>

<sup>1</sup> Ludwig Wittgenstein, *Philosophical Investigations* (Oxford: Blackwell, 1953).

<sup>2</sup> In the archival community, much of the interest in postmodernism arose from the publicity accorded to Derrida’s *Mal d’Archive*, published in English translation in 1996: Jacques Derrida, *Archive Fever: A Freudian Impression* (Chicago: University of Chicago Press, 1996); but perusal of *Archivaria* from the early 1990s shows that the first postmodernist writings in archival literature antedate Derrida’s book.

<sup>3</sup> Victoria Lemieux, “Let the Ghosts Speak: An Empirical Exploration of the Nature of the Record,” *Archivaria* 51 (2001): 82.

<sup>4</sup> For a bibliography of postmodernist writings by archivists, see Joan M. Schwartz and Terry Cook, “Archives, Records, and Power: The Making of Modern Memory,” *Archival Science* 2 (2002): 10, fn 17. Postmodernist concerns also dominate many of the papers in Sue McKemmish, Michael Piggott, Barbara Reed, and Frank Upward, eds., *Archives: Recordkeeping in Society* (Wagga Wagga, New South Wales, Aus.: Charles Sturt University, 2005), and Francis X. Blouin and William G. Rosenberg, eds., *Archives, Documentation, and Institutions of Social Memory: Essays from the Sawyer Seminar* (Ann Arbor: University of Michigan Press, 2006). Such concerns remain largely absent from records management literature.

In psychology, dissatisfaction with definitions has led many scholars in another direction. Traditionally, definitions served not only to distinguish one type of entity from another, but also to enable the determination of borderline cases. If we want to know whether a tomato is a fruit or a vegetable, we could look at the definitions of *fruit* and *vegetable* to learn the requirements for membership in each category and then examine a tomato to see which set of requirements it meets. Perceived problems with this approach are that things like tomatoes (and whales and penguins) do not seem to fit very comfortably into any of the categories proposed for them and, more importantly from the viewpoint of psychology, that in practice most people do not categorize objects in this way. Many psychologists prefer to understand concepts and category membership in terms, not of definitions, but of prototypes. A prototype is assumed to be either a composite mental mapping of the typical features of the kind of entity under consideration, or an exemplar of a typical category member. Prototypes are not absolute. To some people, an exemplar of a bird might be a robin; to others, it might be an eagle. Individual cases are then assessed in terms of their similarity to a given prototype. This approach deprecates the use of definitions and asserts that concepts often have graded membership and fuzzy boundaries.<sup>5</sup>

At the same time, attempts to produce definitions continue. Dictionaries are full of them. Examination papers regularly ask students to define one concept or another. National and international standards are furnished with seemingly authoritative definitions of the terms they employ. In the field of archives and records management, professional bodies, government records services, and international research projects also publish glossaries offering definitions, not only of the term *record*, but of a host of other terms and concepts of relevance to the discipline.<sup>6</sup> Such definitions may not offer unassailable truths but are still useful for many purposes. They assist new entrants to the profession and other inquirers seeking clarification of professional terminology, and they can also be valuable to established professionals when analyzing basic concepts or communicating with customers, experts in other fields, persons in authority, or the wider public.

<sup>5</sup> See Eleanor Rosch, "Principles of Categorization," in *Cognition and Categorization*, ed. Eleanor Rosch and Barbara B. Lloyd (Hillsdale, N.J.: Lawrence Erlbaum, 1978); Edward E. Smith and Douglas L. Medin, *Categories and Concepts* (Cambridge, Mass.: Harvard University Press, 1981); George Lakoff, *Women, Fire, and Dangerous Things: What Categories Reveal about the Mind* (Chicago: University of Chicago Press, 1987); Lawrence W. Barsalou, "The Instability of Graded Structure: Implications for the Nature of Concepts," in *Concepts and Conceptual Development*, ed. Ulric Neisser (Cambridge: Cambridge University Press, 1987).

<sup>6</sup> For example: Peter Walne, ed., *Dictionary of Archival Terminology*, 2nd ed. (Munich: K. G. Saur, 1988); ANSI/ARMA 10-1999, *Glossary of Records and Information Management Terms* (Prairie Village, Kans.: ARMA International, 2000); *The InterPARES Glossary* (2001), available at [http://www.interpares.org/book/interpares\\_book\\_q\\_gloss.pdf](http://www.interpares.org/book/interpares_book_q_gloss.pdf); State Records New South Wales, *Glossary of Recordkeeping Terms* (2003), available at [http://www.records.nsw.gov.au/recordkeeping/glossary\\_of\\_recordkeeping\\_terms\\_4297.asp](http://www.records.nsw.gov.au/recordkeeping/glossary_of_recordkeeping_terms_4297.asp); Richard Pearce-Moses, *A Glossary of Archival and Records Terminology* (2005), available at <http://www.archivists.org/glossary>. Web addresses cited in this article were accessed on 6 July 2007.

Whatever reservations we may have about universal statements, it is legitimate to want to explore the meanings of things and especially their meanings within particular communities. Shared meanings are most likely to be found within what Etienne Wenger called a “community of practice,” a group of people who have common goals and have learned to understand the world in a similar way;<sup>7</sup> yet different emphases and interpretations may also co-exist within a single community.

It is almost a truism that perceptions of records are widely different outside the professional community of archivists and records managers. Lemieux’s paper demonstrated the variety of perceptions among Jamaican government officials and bank employees.<sup>8</sup> Many of the responses she received will be familiar to anyone who has worked in records management in a large organization. Lawyers, legislators, historians, information technologists, librarians, and members of other professional groups are also likely to have their own, perhaps very different, views of records and recordkeeping.<sup>9</sup>

Even within archives and records management, writers and practitioners disagree about what is meant by a record and what distinguishes it from other organizational or cultural resources. Most acknowledge a close connection between records and the activities of individuals, families, communities, or organizations, but beyond this, perceptions vary considerably. Disciplinary backgrounds are often a major determinant. Those whose understanding has been shaped by an archival education are likely to emphasize the roles of evidence, contextual provenance, integrity, and authenticity; those whose background is in information management see records primarily as information assets for government or corporate business; while those brought up in what may loosely be called the “manuscripts” tradition tend to view them as quasibibliographic materials. In recent years, a further divergence has arisen between those who believe that records are stable and impartial and those who prefer to see them as evolving and contingent on contexts of management and use.<sup>10</sup> Some observers might think that the wide range of views indicates a profession unsure

<sup>7</sup> Etienne Wenger, *Communities of Practice: Learning, Meaning, and Identity* (New York: Cambridge University Press, 1998).

<sup>8</sup> Lemieux, “Let the Ghosts Speak,” 81–111.

<sup>9</sup> Discussions of this topic include Trevor Livelton, *Archival Theory, Records, and the Public* (Lanham, Md.: Scarecrow Press, 1996), 3–5; Richard J. Cox, *Managing Records as Evidence and Information* (Westport, Conn.: Quorum, 2001), 7–22; Virginia Jones, *When Worlds Collide: Records Management in an IT Environment* (2003), available at [http://www.edocmagazine.com/vault\\_articles.asp?ID=26624](http://www.edocmagazine.com/vault_articles.asp?ID=26624). As Livelton notes, the narrowly focused perceptions of legislators are often problematic for recordkeeping professionals, since these perceptions necessarily underlie the definitions of records found in laws and statutes in particular jurisdictions. Where such definitions exist, professionals are constrained by them in their daily work, but “need not feel obliged to accept them as the sole foundation of their thinking.” (Livelton, *Archival Theory*, 4).

<sup>10</sup> For an analysis of the influence of these two paradigms, see Anne Gilliland and Sue McKemmish, “Building an Infrastructure for Archival Research,” *Archival Science* 4 (2004): 149–97 (especially 163–70).

of its foundational concepts. Others would argue that this is emblematic of a vigorous profession engaged in lively debate. As well as being difficult or impossible to achieve, consensus may ultimately be undesirable if it constrains the dynamism of the profession or its ability to embrace and learn from different modes of thinking.

This is the first of two papers that will review statements about the nature of the record made by individuals and groups within the archives and records management profession. This paper identifies some of the ways in which views and emphases differ, and it examines a representational approach to understanding records, which hitherto has been largely unexplored. In doing so, it assumes that in any profession it is often appropriate to couch the explication of key concepts in definitional language. Definitions are necessarily shaped by the cultural epochs to which they belong, but they are effective in demonstrating how concepts are perceived and understood within the professional community where they are employed. This paper discusses a number of existing definitions and characterizations of records,<sup>11</sup> and it concludes by proposing a new one; the second paper, to be published in the next issue of *American Archivist*,<sup>12</sup> will review the characterization of records in the light of prototype theory. In using definitional language, this paper does not seek to imply that only one way of looking at records is correct. Rather, it aims to add to our understanding of a concept that is rich, complex, and multifaceted.

## Evidence

The place to start must be with *evidence*. According to Greg O'Shea, "if we revisit the definition of a record we see that the concept of evidence is at its heart."<sup>13</sup> The story often told—that the evidential role of records was emphasized in the writings of Hilary Jenkinson and other pioneers, subverted by Theodore Schellenberg, and then largely forgotten until it resurfaced in the Pittsburgh project—is an oversimplification but not wholly inaccurate.<sup>14</sup> Post-Pittsburgh, the idea that records are distinguished by their evidential qualities

<sup>11</sup> The paper does not address distinctions between *records* and *archives* or the varying uses of these two terms in different cultural and linguistic contexts. The word *records* is used here to refer to all the entities in whose management archivists or records managers claim professional expertise.

<sup>12</sup> Geoffrey Yeo, "Concepts of Record (2): Prototypes and Boundary Objects," *American Archivist* 71 (Spring/Summer 2008), forthcoming.

<sup>13</sup> Greg O'Shea, "Keeping Electronic Records: Issues and Strategies," *Provenance* 1, no. 2 (1996), available at <http://www.provenance.ca/1995-2000backissues/vol1/no2/features/erecs1a.htm>.

<sup>14</sup> For the "rediscovery" of evidence, see Margaret Hedstrom, "Cohesion and Chaos: The State of Archival Science in the United States," in *The Concept of Record: Second Stockholm Conference on Archival Science and the Concept of Record, 30–31 May 1996*, ed. Kerstin Abukhanfusa (Stockholm: Riksarkivet, 1998). The emergence of the evidential focus in the Pittsburgh project during the 1990s is described in Cox, *Managing Records as Evidence and Information*, 32–34.

became especially characteristic of Australian thinking about recordkeeping. In the last few years, a further reaction has occurred as writers influenced by postmodernist theory cast doubts on the centrality of evidence to the concept of record;<sup>15</sup> but the evidential focus still dominates much of the literature produced by and for practitioners.

This literature often states that records are evidence. According to the State Records Authority of New South Wales, "records . . . are more than data, facts or information. They are evidence." In the view of U.K. e-government policymakers, "a record is evidence of an activity or decision."<sup>16</sup> Such statements implicitly or explicitly differentiate records from information, or at any rate from information products, consciously designed to disseminate facts, knowledge, opinions, or ideas.<sup>17</sup>

It is unlikely that the authors of any of these statements mean that "records" and "evidence" are synonyms, in the way that (for example) "water" and "H<sub>2</sub>O" have identical meanings. When evidence is required, whether by a judge, a historian, or anyone else, other things besides records can be adduced. In court, a blood-stained weapon or a piece of DNA may provide evidence, as may oral testimony. Patterns in the soil provide archaeologists with evidence of human habitation; observation of birds supplied evidence for the Darwinian theory of evolution. Evidence can be found in architecture, landscape, urban topography, and museum objects. None of these are records as archivists and records managers normally understand them.

Evidence sometimes relates to the present rather than the past. Smoke is evidence that a fire is alight; sounds and shadows can give evidence that someone is approaching; clicks on a Geiger counter show the presence of radioactivity. Like readings on thermometers and fuel gauges, they are evidence but not records. Whether the event recorded was an hour or five centuries ago, records always point to the past.

Uncertainties about statements that records "are" evidence arise from ambiguities inherent in the words *are* and *is*. When saying that water is H<sub>2</sub>O, we do not use the word *is* in the same sense as when we say that a dog is an animal.

<sup>15</sup> See especially Verne Harris, "Law, Evidence and Electronic Records: A Strategic Perspective from the Global Periphery," *Comma* 2001, nos. 1/2 (2001): 29–43; Brien Brothman, "Afterglow: Conceptions of Record and Evidence in Archival Discourse," *Archival Science* 2 (2002): 311–42.

<sup>16</sup> State Records New South Wales, *Documenting the Future. Appendix 2: Records and Recordkeeping* (1995, updated 2000), available at <http://www.records.nsw.gov.au/publicsector/erk/df/append-2.htm>; *E-government Policy Framework for Electronic Records Management* (2001), available at [http://www.nationalarchives.gov.uk/documents/egov\\_framework.pdf](http://www.nationalarchives.gov.uk/documents/egov_framework.pdf), 7. Examples of similar statements can be found in Elizabeth Shepherd and Geoffrey Yeo, *Managing Records: A Handbook of Principles and Practice* (London: Facet, 2003), 2; Richard J. Cox, "Why Records Are Important in the Information Age," *Records Management Quarterly* 32, no. 1 (1998): 38; and Justine Heazlewood, *Data Archiving and Electronic Recordkeeping* (2001), available at <http://www.prov.vic.gov.au/vers/pdf/010314.pdf>, 5.

<sup>17</sup> See Sue McKemmish, "Introducing Archives and Archival Programs," in *Keeping Archives*, ed. Judith Ellis, 2nd ed. (Melbourne: D. W. Thorpe, 1993), 5–7.

The latter is a case, not of synonymy, but of category membership: a dog is a *kind* of animal. Might the authors of these definitions have meant that they see records as a *kind* of evidence, a narrower concept subsumed within a broader one? Given that many things besides records are associated with the concept of evidence, it seems reasonable to suppose that this was their intention.

Inevitably, however, such an interpretation will be more acceptable to some readers of these definitions than to others. At one level, its acceptability will depend on readers' disciplinary backgrounds and their perceptions of the role of evidence in recordkeeping. Those working within the "information management" tradition, where the notion of evidence usually has a lower profile, may be inclined to reject it. The definitions given above were all generated within the broadly Jenkinsonian "archival" tradition and are more likely to be congenial to those who subscribe to that tradition.

At another level, it may depend on the reader's attitude to the Aristotelian rule that definitions are framed *per genus et differentiam*. The *genus* is the wider class to which a concept belongs; the *differentia* is the attribute, or set of attributes, that supposedly distinguishes it from other members of the same class. In Aristotelian logic, a definition must contain both. Following this rule, a *human being* can be defined as a rational animal. Humans are animals but are differentiated from other animals by their possession of faculties of reasoning. In this example, animals are the *genus* and humans the *species*.<sup>18</sup> The famous definition of a *patron* in Samuel Johnson's *Dictionary* ("a wretch who supports with insolence, and is paid with flattery") also conforms to this rule: Johnson tells us that, in his view, patrons are a kind of wretch, and then differentiates them from other wretches by telling us what kind of wretch they are.<sup>19</sup>

In its developed form, the Aristotelian tradition also insists that a *species* inherits the properties of its *genus* and that the attributes specified in the definition of a *species* must be those fundamental to its identity; they must be individually necessary (each attribute must be present in each instance of the *species*) and jointly sufficient (any entity within the *genus* that has them all must be an instance of the *species*). In recent years, few philosophers have shown much enthusiasm for these rules.<sup>20</sup> Many concepts have proved hard to define in this manner. Other difficulties include the problem of the *summum genus*: the problem that, if every concept is defined as a *species* of something else, at the top

<sup>18</sup> David Kelley, *The Art of Reasoning*, 3rd ed. (New York: W. W. Norton, 1998), 36–37.

<sup>19</sup> Samuel Johnson, *A Dictionary of the English Language* (London: W. Strahan, 1755), unpaginated.

<sup>20</sup> Dissatisfaction with the classical Aristotelian approach is not limited to those working within a post-modernist or interpretivist paradigm. See for example the essays reprinted in Stephen P. Schwartz, ed., *Naming, Necessity, and Natural Kinds* (Ithaca, N.Y.: Cornell University Press, 1977); E. J. Lowe, *Kinds of Being: A Study of Individuation, Identity and the Logic of Sortal Terms* (Oxford: Blackwell, 1989); Jerry A. Fodor, *Concepts: Where Cognitive Science Went Wrong* (Oxford: Clarendon Press, 1998).

of the conceptual tree must still be some thing or things that cannot be defined in this way. In other disciplines, the Aristotelian doctrine sometimes wins more acceptance. It remains highly influential in, for example, object-oriented computing. But whatever our opinion of Aristotelian logic, our willingness to accept that records can be seen as a kind of evidence necessarily depends on our view of what evidence is.

Dictionary definitions of *evidence* are encouraging. Australian recordkeeping literature cites the *Macquarie Dictionary*, stating that *evidence* is “ground for belief; that which tends to prove or disprove something.”<sup>21</sup> The *Collins English Dictionary* defines *evidence* as “1. ground for belief or disbelief; data on which to base proof or to establish truth or falsehood; 2. a mark or sign that makes evident.”<sup>22</sup> The *Oxford English Dictionary Online* offers a wealth of definitions of *evidence*, including many examples of usages said to be obsolete. In current usage, the predominant definitions are “that which manifests or makes evident . . . an appearance from which inferences may be drawn . . . ground for belief; testimony or facts tending to prove or disprove any conclusion.”<sup>23</sup> All these definitions are broadly similar, and if we accept them we may have little difficulty with suggestions that records are a kind of evidence. When we have a record of something, we have grounds for belief in the fact or manner of its occurrence. We may have additional grounds, other kinds of evidence for the same belief, but we can plausibly see the record as one kind of evidence, perhaps one that is particularly significant.

As David Schum commented in 1994, we “use the term evidence with reference to observable phenomena upon which we base inferences about matters of interest and importance to us.”<sup>24</sup> Evidence can be employed to support action or decision making as well as to prove or refute claims and hypotheses. It can be used to draw new conclusions or corroborate an existing proposition. It can be a means of ascertaining whether a proposition is true, justifying a belief that it is true, explaining why it is true, or persuading an audience of its truth. These are all recognizable purposes for which records can be employed.

A 1981 study by Edward Smith and Douglas Medin suggests that the qualities that a *species* inherits from its *genus* must be either “features” (qualities that can only be present or absent) or “dimensions” (qualities with a range of possible values).<sup>25</sup> A knife has the feature of a blade and dimensions of weight

<sup>21</sup> Quoted in National Archives of Australia, *Keeping Electronic Records* (1995), available at [http://www.naa.gov.au/recordkeeping/er/keeping\\_er/creation.html](http://www.naa.gov.au/recordkeeping/er/keeping_er/creation.html).

<sup>22</sup> *Collins English Dictionary, Desktop Edition* (Glasgow: Harper Collins, 2004), 541.

<sup>23</sup> *Oxford English Dictionary Online*, available by subscription at <http://dictionary.oed.com/cgi/entry/50079133>.

<sup>24</sup> David A. Schum, *Evidential Foundations of Probabilistic Reasoning* (New York: John Wiley, 1994), 1.

<sup>25</sup> Smith and Medin, *Categories and Concepts*, 11–15; see also W. R. Garner, “Aspects of a Stimulus,” in *Cognition and Categorization*, 102–5.



and sharpness, and all *species* of knives have these, too. One critical dimension of evidence is its credibility. Not all evidence is equally credible but all can be measured on some scale of credibility.<sup>26</sup> Schum identified a number of aspects of the credibility of evidence, including its reliability, accuracy, and authenticity.<sup>27</sup> These are also widely recognized as dimensions of records.<sup>28</sup>

All these arguments support the view that records are a kind of evidence. But if we take the investigation further, complications begin to appear. In particular, there is scope for debate as to whether records and evidence belong to the same ontological category. *Record* is a count noun. We can have one record, or two, or twenty records. *Evidence*, on the other hand, is not a count noun. It has no plural form in modern English, and the question “How many?” cannot be asked of it.<sup>29</sup> In logic, it may be argued that countable entities cannot belong to a *genus* that is uncountable. A river cannot be a kind of water; a girder cannot be a kind of steel. Those who agree with this assertion are unlikely to accept that records can be a kind of evidence.

Especially in legal discourse, evidence is often said to allude to a *relativity*. At the beginning of the nineteenth century, Jeremy Bentham wrote that “evidence is a word of relation.”<sup>30</sup> In the twentieth century, the jurist J. H. Wigmore stated that evidence “signifies a relation between two facts, the *factum probandum*, or proposition to be proved, and the *factum probans*, or material evidencing the proposition. The former is necessarily hypothetical; the latter is brought forward as a reality for the purpose of convincing the tribunal that the former is also a reality. . . . All evidence must involve an inference from some *fact[um] probans*.”<sup>31</sup> More recently

<sup>26</sup> Schum, *Evidential Foundations*, 58, 66–67, 92, 201–5; Tim May, *Social Research*, 3rd ed. (Buckingham, England: Open University Press, 2001), 189–90.

<sup>27</sup> Schum, *Evidential Foundations*, 97–99.

<sup>28</sup> Luciana Duranti, “Reliability and Authenticity: The Concepts and Their Implications,” *Archivaria* 39 (1995): 5–10; Claes Grånström, Torbjörn Hornfeldt, Gary Peterson, Maria Pia Rinaldi Mariani, Udo Schäfer, and Josef Zwicker, *Authenticity of Electronic Records: A Report by ICA to UNESCO* (2002), available at [http://www.ica.org/sites/default/files/Study13\\_1E.pdf](http://www.ica.org/sites/default/files/Study13_1E.pdf). Archivists and records managers have sometimes thought that credibility is an absolute that can be guaranteed, perhaps by following the precepts of the InterPARES project or standards such as ISO 15489:2001 *Records Management* and BIP 0008:2004 *Code of Practice for Legal Admissibility and Evidential Weight of Information Stored Electronically*, but it can also be argued that measurements of credibility are subjective: that what is fully credible to one person may not be so to another.

<sup>29</sup> The plural form was used in England in earlier times. It was employed more or less as a synonym for *records* and more specifically as a collective term for charters and title deeds. See for example the references in Geoffrey Yeo, “Record-keeping at St Paul’s Cathedral,” *Journal of the Society of Archivists* 8 (1986): 30–44, to a sixteenth-century register “of evidences and writings” (p. 39) and seventeenth-century instructions for the preservation of “the records and evidences” of the cathedral (p. 30). The *Oxford English Dictionary Online* gives an example of this usage from the Paston letters of 1444. But the dictionary shows that the former practice of using “evidences” in the plural, like the obsolete use of “an evidence” to refer to a witness or a spy, was linked to a different semantic concept from the more widespread use of “evidence” as an uncountable term.

<sup>30</sup> Jeremy Bentham, *Rationale of Judicial Evidence*, vol. 1 (London: Hunt and Clarke, 1827), 17.

<sup>31</sup> J. H. Wigmore, *The Principles of Judicial Proof*, 2nd ed. (Boston: Little, Brown, & Co., 1931), 8, 12.

still, Luciana Duranti drew on these ideas when she wrote that in jurisprudence “evidence is not an entity, but a relationship . . . between the fact to be proven and the fact that proves it.”<sup>32</sup> Records have usually been perceived not as inferential relationships but as specific entities, encoded spatially and bounded at the time of their creation because of their correspondence to particular activities or groups of activities.<sup>33</sup> Consequently, one can argue that records cannot be a *species* of evidence if it is defined as a relation between two facts.

On the other hand, the *factum probans*, the material evidencing a particular proposition, is envisaged as a specific entity in Wigmore’s model. Wigmore himself called it “a reality.”<sup>34</sup> To the nonspecialist, the distinction between “materials evidencing a proposition” and “evidence of a proposition” may be indiscernible. In everyday speech, “materials evidencing” are often referred to simply as “evidence,” or “pieces of evidence,” the latter phrase again indicating their nature as specific entities.<sup>35</sup> When the word *evidence* is used in this way, it becomes easier to conceive of records as one of its subsets.

We can now see that people reach different conclusions because of uncertainty, not only about the nature of records, but also about what is meant by *evidence*. These differences are compounded by disagreements about the extent to which evidence has any meaning independent of human action or thought. Michael Buckland was clearly right to note that “evidence . . . does not *do* anything actively. Human beings do things *with* it or *to* it.”<sup>36</sup> But there is ample scope for argument about how far it can be said to exist abstractly, without reference to individual users and particular contexts, and how far it arises from interaction in response to specific human requirements.

In Schum’s view, “a datum . . . becomes evidence only when its relevance to some . . . issue is established.” The philosophers Morris Cohen and Ernest Nagel also argue that, whether in law or in scientific or historical research, “sometimes we find considerations to be irrelevant and to constitute no

<sup>32</sup> Luciana Duranti, “The Concept of Electronic Record,” in Luciana Duranti, Terry Eastwood, and Heather MacNeil, *Preservation of the Integrity of Electronic Records* (Dordrecht: Kluwer, 2002), 9; cf. Luciana Duranti, *Diplomatics: New Uses for an Old Science* (Lanham, Md.: Scarecrow Press, 1998), 6, fn 5.

<sup>33</sup> Cox, *Managing Records as Evidence and Information*, 46; Hans Hofman, “Lost in Cyberspace: Where Is the Record?,” in *The Concept of Record*, 121.

<sup>34</sup> Wigmore, *The Principles of Judicial Proof*, 8.

<sup>35</sup> Even in legal writings, the view that evidence refers to inference rather than materials is scarcely borne out by the use of the term in practice. Cf. William Twining, *Rethinking Evidence* (Oxford: Blackwell, 1990), 179: “the main examples of judicial evidence are statements by witnesses . . . , things . . . and documents.” Of course much of our response to Wigmore’s model depends on what we understand by the assertion that the term *evidence* signifies a relationship. The terms *uncle* and *employer* are also terms of relationship; uncles do not exist absolutely, but only in relation to someone else whose uncle they are; yet every uncle is necessarily a particular person. It could also be argued that evidence is necessarily embodied in particular entities.

<sup>36</sup> Michael K. Buckland, “Information as Thing,” *Journal of the American Society for Information Science* 42 (1991): 353. His italics.

evidence at all.”<sup>37</sup> But if we think that the status of one thing as evidence for another is contingent upon its relevance to the matter to be proved, we must acknowledge that things that at first seem relevant may later prove to be irrelevant, and that different people will form different judgments about what is relevant to a given issue. For example, the discovery in a criminal case that suspect A had threatened the victim would appear to be relevant evidence, but if tomorrow we learn that A has an unshakable alibi, the previous discovery becomes irrelevant. In another case, the shape of B’s head may appear to one observer to be evidence of B’s intellect or character, while other observers refuse to see this as evidence at all.<sup>38</sup> If we accept this line of argument, we are likely to conclude that evidence is subjective and bound to circumstances.

Our opinions on these questions will have a significant impact on our perception of records. Can a record have objective evidential qualities, or is evidence wholly contingent upon the user? Does a record serve as evidence only to those who can read it, or to those who need evidence of some particular, or to those who find it relevant to their need? According to Schum, “evidence rarely comes to us with already-established credentials regarding its relevance. . . . Such credentials have to be established.”<sup>39</sup> Is this also true of records? Some archivists and records managers may affirm that it is; others will probably argue that records naturally come, or can be made to come, with relevance credentials connecting them to the activities where they originated.

Clearly these are shifting sands, and it is easy to see why some people prefer to abandon the notion that records are a kind of evidence. Instead we could say that records *provide* evidence, or that evidence *can be obtained by using them*. The definition offered in Bruce Dearstyne’s *The Archival Enterprise* states that “records . . . provide lasting evidence of events.” The ICA Committee on Electronic Records took a similar view in 1997, stating in its definition that records comprise “content, context and structure sufficient to provide evidence” of the activity in which they were produced or received.<sup>40</sup> Brien Brothman’s article in *Archival Science* in 2002 strongly advocates the view that evidence derives from the *use* of records. According to Brothman, evidence does not simply “exist” or

<sup>37</sup> David A. Schum, “Evidence and Inferences about Past Events,” in *Evidence and Inference in History and Law*, ed. William Twining and Iain Hampsher-Monk (Evanston, Ill.: Northwestern University Press, 2003), 20; Morris R. Cohen and Ernest Nagel, *An Introduction to Logic and Scientific Method* (London: Routledge and Kegan Paul, 1963), 5.

<sup>38</sup> Schum, *Evidential Foundations*, 74, 505. Cf. Peter Achinstein, “Concepts of Evidence,” in *The Concept of Evidence*, ed. Peter Achinstein (Oxford: Oxford University Press, 1983), 145 ff.

<sup>39</sup> Schum, *Evidential Foundations*, 67.

<sup>40</sup> Bruce W. Dearstyne, *The Archival Enterprise* (Chicago: American Library Association, 1993), 1; International Council on Archives, *Guide for Managing Electronic Records from an Archival Perspective* (Paris: International Council on Archives, 1997), 22.

“reside in objects”; someone “has to . . . discover and use records for a particular purpose. . . . Evidence . . . arises out of processes of social negotiation after the fact.”<sup>41</sup>

As with other areas of debate about the nature of records, consensus on this issue is unlikely; but when we consider the variety of evidence that users can derive from records, an argument emerges that could be persuasive. Users may seek evidence of the activities that gave rise to the records, but records can also be used to obtain evidence of other things: the age of a baby, the name of an applicant, the kind of paper used in a department, the records creation processes mandated in an organization, the social and political context in which records were produced, and so on almost *ad infinitum*. This diversity of use creates a difficulty for anyone offering a definition that records are evidence of activity. Does it make sense to say that a record is one kind of evidence (evidence of activity) but can also be used to *obtain* other kinds of evidence? Many would argue that it does not. Seeing evidence as something that records *provide* eliminates such awkwardness.

### Information

Another popular view of records emphasizes their relationship to *information*, rather than evidence. The concepts of evidence and information are closely connected, but information is often perceived as a wider term, or as having broader appeal. As Schum has noted, unlike evidence “information does not necessarily make explicit reference to the process of discriminating among hypotheses we entertain.”<sup>42</sup> However, many of the issues that arise when records are seen as evidence recur when we examine the relationship between records and information. Similar questions have to be asked. Can records be perceived as a *kind* of information, or is information something that records provide to those who use them?

To Ira Penn and his co-authors, records “are a distinct category of information.”<sup>43</sup> Not everyone would agree with this assertion, but many

<sup>41</sup> Brothman, “Afterglow,” 334. The idea that evidence derives from use, with its diminution of the role of the creator and its concomitant notion of evidence as a subjective rather than an objective concept, has an obvious appeal to those of a postmodernist persuasion; but objectivists too may choose to see evidence in terms of use. According to Duranti, “The Concept of Electronic Record,” 10, it is from the point of view of the user seeking “potential proof,” that records can be seen as evidential. Postmodernist thinking emphasizes the role of individual interpretation; objectivists argue that users employ records to prove the truth of hypothetical facts.

<sup>42</sup> Schum, *Evidential Foundations*, 20.

<sup>43</sup> Ira A. Penn, Gail Pennix, and Jim Coulson, *Records Management Handbook*, 2nd ed. (Aldershot, England: Gower, 1994), 4.

definitions of records conform to it. To take just two examples, the *International Standard for Archival Description* defines records as “recorded information in any form or medium, created or received and maintained by an organization or person in the transaction of business or the conduct of affairs”; the *Sedona Guidelines* for records management defines them as “a special subset of information deemed to have some enduring value . . . and warranting special attention concerning retention, accessibility, and retrieval.”<sup>44</sup> Broadly similar definitions can be found in the *ARMA Glossary*, the ISO 15489 records management standard, and many other texts.<sup>45</sup>

All these definitions follow the Aristotelian model. Besides indicating that (in the view of their authors) a record is a kind of information, they provide *differentiae*, or sets of attributes, that suggest how records can be distinguished from other kinds of information. Most give a larger number of attributes than the “evidential” definitions discussed above.<sup>46</sup> Attributes can relate to the circumstances of creation or receipt; the need for content, context, and structure, or for retention or preservation; the functions, purposes, physical characteristics, or legal status of records; reasons for which they are kept or uses to which they can be put; or procedures that have been or should be applied to them. Examples of most of these can be found in the literature, although few if any definitions include them all.

Our view of the validity of these definitions again largely depends on our interpretation of the concepts they mention, and in particular our understanding of what is meant by “information.” On this topic an extensive, and largely inconclusive, literature stretches across many disciplines. As Christopher Fox wrote in 1983, “information . . . is as ubiquitous as air or heat or water. But . . . no one seems to know exactly what information is.”<sup>47</sup>

One interpretation perceives it as a message or messages. Information is understood as content, or as the “meaning” of content: the ideas, assertions, or

<sup>44</sup> ISAD(G): *General International Standard Archival Description*, 2nd ed. (2000), available at [http://www.ica.org/sites/default/files/isad\\_g\\_2e.pdf](http://www.ica.org/sites/default/files/isad_g_2e.pdf), 11; *The Sedona Guidelines: Best Practice Guidelines and Commentary for Managing Information and Records in the Electronic Age* (2005), available at [http://www.thesedonaconference.org/content/miscFiles/TSG9\\_05.pdf](http://www.thesedonaconference.org/content/miscFiles/TSG9_05.pdf), 3.

<sup>45</sup> ANSI/ARMA 10-1999, *Glossary of Records and Information Management Terms*; ISO 15489-1:2001, *Records Management*, Part 1: General.

<sup>46</sup> Most of the latter merely indicate that records are evidence of *activities* rather than (presumably) of facts, assertions, etc. As a *differentia*, this may be necessary but is probably not sufficient, since it would not exclude such things as smoke and shadows from the definition of records.

<sup>47</sup> Christopher J. Fox, *Information and Misinformation* (Westport, Conn.: Greenwood Press, 1983), 3. Recent surveys of the literature on this subject include Rafael Capurro and Birger Hjørland, “The Concept of Information,” *Annual Review of Information Science and Technology* 37 (2003): 343–411, and Donald O. Case, *Looking for Information: A Survey of Research on Information Seeking, Needs, and Behavior* (San Diego, Calif.: Academic Press, 2002), 39–63. An older but still useful study is N. J. Belkin, “Information Concepts for Information Science,” *Journal of Documentation* 34 (1978): 55–85.

propositions that the content conveys.<sup>48</sup> The message is seen as intangible. It can reside on a physical medium but also in people's minds. It is often particularized as a message communicated to someone; information is "that of which one is apprised or told; intelligence, news."<sup>49</sup> Information in this sense is often contrasted with *data*. Information is said to be derived from raw data, but the data only become information when they are somehow concentrated and improved.<sup>50</sup>

Another interpretation sees information as a process of communication or problem resolution. It may be wholly mental or may involve external agents in effecting a change in what someone knows: "the action of telling or fact of being told of something."<sup>51</sup> In either case, information is seen as the process itself rather than as a tangible or intangible instrument that the process employs. Many writers have been influenced by Claude Shannon and Warren Weaver's work on information theory and define information as "a reduction of uncertainty" or the like. Some of them also see information as a process; others perceive it as a state resulting from the process of being informed.<sup>52</sup>

A further interpretation sees information as a "thing," the material form into which messages are encoded. From this perspective, as Buckland notes, "the term *information* is used attributively for objects . . . regarded as being informative."<sup>53</sup> This is the predominant view in the "information resource management" community, which sees information as a quantifiable asset or commodity that can be identified and classified.<sup>54</sup> To those who see records as spatial entities, this is perhaps the only interpretation compatible with assertions that records

<sup>48</sup> Fox, *Information and Misinformation* is a good example of this approach.

<sup>49</sup> *Oxford English Dictionary Online*, available by subscription at <http://dictionary.oed.com/cgi/entry/50116496>. This notion has given rise to a further debate about whether information is absent unless the message is successfully conveyed to the recipient, who is able to understand it; see Case, *Looking for Information*, 60.

<sup>50</sup> David Bawden, "The Shifting Terminologies of Information," *Aslib Proceedings* 53 (2001): 93–98.

<sup>51</sup> *Oxford English Dictionary Online*. Cf. Fox, *Information and Misinformation*, 41–42. This interpretation is exemplified by Allan D. Pratt, "The Information of the Image," *Libri* 27 (1977): 204–20.

<sup>52</sup> Claude E. Shannon and Warren Weaver, *The Mathematical Theory of Communication* (Chicago: University of Illinois Press, 1949). The influence of this work is discussed in Fox, *Information and Misinformation*, 58–65, and Case, *Looking for Information*, 46–52.

<sup>53</sup> Buckland, "Information as Thing," 351.

<sup>54</sup> Charles Oppenheim, Joan Stenson, and Richard M. S. Wilson, "Studies on Information as an Asset. 1. Definitions," *Journal of Information Science* 29 (2003): 159–66; Jonathan J. Eaton, *Is Information a Resource?* (Sheffield, England: University of Sheffield Department of Information Studies, 1987). This model is usually associated with corporate libraries and information units, but sometimes makes an appearance in records management literature; see for example Catherine Hare and Julie McLeod, *Developing a Records Management Programme* (London: Aslib, 1997), 7–8.

are a *species* of information.<sup>55</sup> However, many scholars argue that this approach confuses information with its carrier and that information exists independently of physical media.<sup>56</sup>

As in the case of *evidence*, no single view of the concept of *information* prevails. In the face of this diversity, it is unsurprising to find differing opinions on the nature of the relationship between information and records. Those who perceive information as messages or processes and records as physical objects are unlikely to argue that records are a kind of information. Archivists and records managers who see information as intangible content may prefer to take the view that records *provide* information, or that information can be derived from using them.

### The Affordances of Records

Some will affirm that evidence and information are both among the goods that records provide. This view, or something like it, underlies Schellenberg's appraisal model with its emphasis on evidential and informational values.<sup>57</sup> It is also implied in Angelika Menne-Haritz's assertion that "what can be read in the texts [of records] is called information. . . . What can be read between the lines, in signs, symbols, or even in the composition of texts . . . is evidence."<sup>58</sup> It remains debatable how far information and evidence are (objectively) contained *in* a record and how far they are (subjectively) conveyed *by* it; but those who take this view would presumably agree that, in some sense, records supply their users with both information and evidence.

Others may prefer the somewhat different view that the information found in records in turn provides the evidence. This view is implicit in, for example, a report of the New York State Archives *Models for Action* project in the 1990s, where project staff are reported to have found "that much more information was typically captured and retained during the course of a business process than was needed to provide evidence of a transaction."<sup>59</sup> However, many archivists and records

<sup>55</sup> Or possibly, since *record* is a count noun, with assertions that records are a *species* of information assets. In some languages, such as French, *information* is a count noun, but in English it is uncountable. English-language information resource management literature tends to use *information* and *information asset* more or less interchangeably, but only the latter is a count noun with a plural form.

<sup>56</sup> Case, *Looking for Information*, 52. See also Buckland, "Information as Thing," 351–2; June Lester and Wallace C. Koehler, *Fundamentals of Information Studies* (New York: Neal-Schuman, 2003), 15.

<sup>57</sup> T. R. Schellenberg, *Modern Archives: Principles and Techniques* (Melbourne: F. W. Cheshire, 1956), 139–60. The parallel is not exact because of Schellenberg's seemingly myopic view of evidence. For the limitations of his perception of "evidential value," see Shepherd and Yeo, *Managing Records*, 151.

<sup>58</sup> Angelika Menne-Haritz, "What Can Be Achieved with Archives?," in *The Concept of Record*, 19–20.

<sup>59</sup> Center for Technology in Government, *Models for Action: Developing Practical Approaches to Electronic Records Management and Preservation. Report to NHPRC for the Time Period from 4/1/97 to 9/30/97* (1997), accessed at <http://web.archive.org/web/20030303003854/http://www.ctg.albany.edu/projects/er/thirdrpt.html> on 1 September 2006, but no longer available. Cf. Charles M. Dollar, *Archival Theory and Information Technologies* (Macerata, Italy: University of Macerata, 1992), 45.

managers would argue that the use of records as evidence depends on more than just the retention of information. When the ICA Committee on Electronic Records affirmed that records comprise “content, context and structure sufficient to provide evidence” of activities, its report asserted that the evidential aspect of records derives not just from their informational content, but also from their provenance, their physical and intellectual form, and their incorporation into a record-keeping system.<sup>60</sup> Current professional literature often echoes these assertions.

In addition to evidence and information, we can identify other goods that records provide to users. A user may be interested in the aesthetic qualities, tangibility, or physical form of records, or their symbolic connection with particular individuals, organizations, places, or events.<sup>61</sup> These provisions have only a weak association with evidence and information, but arise primarily from a perception of records as objects or artifacts. In earlier work, I referred to these as “values” of records, following the terminology employed by Schellenberg,<sup>62</sup> but a better label might be “affordances,” the term used in Abigail Sellen and Richard Harper’s *The Myth of the Paperless Office* to refer to the properties and functions provided by a resource.<sup>63</sup> Other affordances of records include memory, accountability, legitimization of power, a sense of personal or social identity and continuity, and the communication of such benefits across space and time. When added to information and evidence, these give records what Harris calls a “cornucopia of meanings,”<sup>64</sup> a richness of affordances transcending any single aspect of recordkeeping or use.

Writings about records often emphasize their role as a source of memory for organizations and the wider society. Records are linked with collective memory because they transcend the limits of a single human mind. In Dearstyne’s phrase, they are “extensions of the human memory.”<sup>65</sup> They allow communities,

<sup>60</sup> International Council on Archives, *Guide for Managing Electronic Records from an Archival Perspective*, 22. The idea that the evidentiality of records derives from the conjunction of their content, context, and structure originated with David Bearman; see David Bearman, *Electronic Evidence: Strategies for Managing Records in Contemporary Organizations* (Pittsburgh: Archives and Museum Informatics, 1994), 5, 148, 191, 285.

<sup>61</sup> For symbolic connections, see James M. O’Toole, “The Symbolic Significance of Archives,” *American Archivist* 56 (1993): 234–55.

<sup>62</sup> Geoffrey Yeo, “Understanding Users and Use: A Market Segmentation Approach,” *Journal of the Society of Archivists* 26 (2005): 34; Shepherd and Yeo, *Managing Records*, 157.

<sup>63</sup> Abigail J. Sellen and Richard H. R. Harper, *The Myth of the Paperless Office* (Cambridge, Mass.: MIT Press, 2002), 17. The notion of affordances has its origins in James J. Gibson, *The Ecological Approach to Visual Perception* (New York: Houghton Mifflin, 1979).

<sup>64</sup> Harris, “Law, Evidence and Electronic Records,” 41.

<sup>65</sup> Dearstyne, *The Archival Enterprise*, 1. Recent writings on records and memory include Richard J. Cox, *Closing an Era: Historical Perspectives on Modern Archives and Records Management* (Westport, Conn.: Greenwood Press, 2000), chapter 6 “Archives, Records, and Memory”; Brien Brothman, “The Past that Archives Keep: Memory, History, and the Preservation of Archival Records,” *Archivaria* 51 (2001): 48–80; Joan M. Schwartz and Terry Cook, “Archives, Records, and Power: The Making of Modern Memory,” *Archival Science* 2 (2002): 1–19. *Archives and Manuscripts* 33, no. 1 (2005) is a themed issue on collective memory.



and their individual members, to recall things otherwise forgotten, or at best imperfectly remembered.<sup>66</sup> To those who have some personal memory of the events recorded, they corroborate or challenge mental recollection; to those who come later, they are a replacement for it.

In practice, no clear distinction can be drawn between a need for memory and a need for evidence or information. All these affordances are affinitive and interdependent. The concept of memory implies a capacity to retrieve information from the past. Information can be seen as a component of evidence, and also as an outcome of it, since provision of evidence can confirm information previously open to doubt. Evidence can substantiate memories and help to prevent their falsification. It can support recollection of activities that gave rise to the creation of records, but can also substantiate memories of other aspects of the world in which records were created, maintained, or used. Symbolic affordances of records are also connected to memory, since they are often associated with the honorific commemoration of people or events deemed significant in the life of an individual or a community.

### **Records as Documents, By-products, or Activities**

If the claims that records are a kind of evidence, or a kind of information, are rejected, and if evidence and information are seen as just two of the many affordances that records provide, some important questions remain unanswered. What do we mean when we speak of a “record”? To what *genus* do records belong? And if records have a special relationship to activities, different from or closer than their relationships to other things of which they supply evidence or memory, how can we characterize this special relationship?

Some professionals deal with these questions by defining a record as a kind of *document* with a particular connection to an activity. The InterPARES project, for example, defines a record as “a document made or received and set aside in the course of a practical activity.” The European *Model Requirements for the Management of Electronic Records* defines records as “documents produced or received by a person or organisation in the course of business, and retained by that person or organisation.”<sup>67</sup>

<sup>66</sup> An emphasis on memory is appropriate not least because it reflects the linguistic origins of the word *record*. In classical Latin, *recordatio* meant a mental recollection of something in the past. In early medieval England, it had come to mean a verbal statement or recollection formally presented as oral testimony, but as the courts of law began to recognize written procedures and documentary evidence the words *recordatio* and *recordum* came to be used for written documents; see M. T. Clanchy, *From Memory to Written Record: England 1066–1307*, 2nd ed. (Oxford: Blackwell, 1993), 77. The original meaning survives in some European languages. In Italian, for example, *ricordi* are recollected thoughts, or mementoes, and the word *archivi* is normally used where *records* would be employed in English-language professional discourse.

<sup>67</sup> *The InterPARES Glossary*, 6; European Commission, *Model Requirements for the Management of Electronic Records* (Luxembourg: Office for Official Publications of the European Communities, 2002), 11.

Such definitions begin by emphasizing the format of the record carrier; and it seems true that many, perhaps most, records are in documentary format. But in an age when records can take the form of voice recordings or moving images, it becomes more problematic to define a record as a kind of document. Growing awareness of methods of recordkeeping in other cultures and other ages also brings recognition that records can take the form of three-dimensional objects. The knotted strings of the Incas, the wampum belts of the Iroquois, and the tally sticks of the medieval English Exchequer<sup>68</sup> were records, but would not normally be classed as documents.

In recent times, the growth of computing has introduced the notion that *data* can be maintained independently of documentary formats. Electronic documents are typically produced using word-processing or similar software, whereas in computer science data are usually seen as the domain of separate applications built around database technology. In many areas of work, entry of data into databases has replaced the creation of documents as the preferred method of creating records. Staff operating a helpdesk, for example, may enter data such as name, date, and subject of inquiry into a database, and these data constitute the record of the handling of each inquiry. Besides their use in recording a completed activity, data-centric systems can also be used to perform the activity itself. Internet commerce and automatic teller machines are obvious examples. In these technologies, sets of data are transmitted from customers to suppliers to effect transactions, and the data comprising the record of each transaction exist independently of document constraints. As such systems become widespread, it is increasingly recognized that in digital environments records cannot be seen merely as a subset of documents.<sup>69</sup>

Some writers, including Angelika Menne-Haritz and Randall Jimerson, characterize records as *by-products*, *remnants*, or *residues* of activities.<sup>70</sup> Many

<sup>68</sup> Tally sticks were notched pieces of wood that served as financial receipts; see Hilary Jenkinson, "Exchequer Tallies," *Archaeologia* 62 (1911): 367–80. For the Inca strings, or *quipu*, see Gary Urton, "From Knots to Narratives: Reconstructing the Art of Historical Record Keeping in the Andes," *Ethnohistory* 45 (1998): 409–38; for wampum belts, see *Wampum: Treaties, Sacred Records* (1996), available at <http://www.kstrom.net/isk/art/beads/wampum.html>, and Francis Jennings, William N. Fenton, Mary A. Druke, and David R. Miller, eds., *The History and Culture of Iroquois Diplomacy* (Syracuse, N.Y.: Syracuse University Press, 1985), 88–90, 99, 105.

<sup>69</sup> Even when records are in documentary format, it may still be questioned whether there is a one-to-one correspondence between *record* and *document*. The Public Record Office Victoria, for example, has noted that "records can be made up of multiple documents" (Public Record Office Victoria, *Electronic Recordkeeping: Advice to Victorian Government Agencies* (2000), available at <http://www.prov.vic.gov.au/publications/publIns/PROVRMadvice1.pdf>, 2), which suggests a partonomic rather than a generic relationship. Much also depends on how *documents* are defined. For a fuller discussion, see Shepherd and Yeo, *Managing Records*, 13–18, 64–65.

<sup>70</sup> Angelika Menne-Haritz, *Business Processes: An Archival Science Approach to Collaborative Decision Making, Records, and Knowledge Management* (Dordrecht: Kluwer, 2004), 11; Randall C. Jimerson, "Archives and Memory," *OCLC Systems and Services* 19 (2003): 90. Cf. Dollar, *Archival Theory and Information Technologies*, 45, 47; Alf Erlandsson, *Electronic Records Management: A Literature Review* (Paris: International Council on Archives, 1997), 19.

business procedures and methods lead naturally to the creation of records, and it can be argued that people at work are likely to be more conscious of an activity being performed than of the fact that they are incidentally creating a record of it. From this perspective, records are seen as objects whose creation is secondary to the accomplishment of particular activities and that remain in existence when those activities terminate.

Others suggest that records are *the activities themselves*. In David Bearman's phrase, they are "communicated transactions."<sup>71</sup> Edward Higgs expounded a broadly similar view at the 1996 Stockholm conference on the concept of record. Higgs argued that "a letter sent from the widow of a sailor . . . asking for a pension is not a later record of some spoken plea, it is the act of supplication in itself," and that such texts are preserved "not because they record activities but because they are activities."<sup>72</sup>

Both of these perspectives can be useful. The value of Higgs's interpretation lies in the strength of its reminder of the critical link between records and human actions and experiences. The suggestion that records are by-products emphasizes the natural qualities that many records possess as a result of the circumstances of their creation. Insofar as records are consciously constructed to facilitate activity, the social context in which they are created circumscribes their form and content; but most records are not deliberate efforts to influence the thought or understanding of humanity at large.

However, neither of these views embraces the whole universe of records. Neither view takes account of what students of diplomacy call "probative" records: records that are not intrinsic to an activity, but are constructed separately.<sup>73</sup> The minutes of a meeting cannot be identified with the meeting itself, nor can they be described as an accidental by-product of it. Like birth registers, equipment maintenance records, or helpdesk databases, they are purposeful creations. Much the same can be said of file copies of outgoing letters; they are not chance residues of activities, but are made specifically to meet recordkeeping requirements.

Higgs's view is open to the further objection that, in the case of a letter, the activity is normally achieved by transmission and receipt of the text, not by the mere existence of the text itself. An activity occurs at a particular period in time, whereas written texts are entities with a continuing existence. A *record* cannot be a synonym for an activity or a *species* of one. In ontological terms, it belongs to a different category.

<sup>71</sup> Bearman, *Electronic Evidence*, 189–90.

<sup>72</sup> Edward Higgs, "Record and Recordness: Essences or Conventions?," in *The Concept of Record*, 105.

<sup>73</sup> According to Duranti, the label "probative" should be restricted to records whose written form and procedurally separate construction are legally required (Duranti, Eastwood, and MacNeil, *Preservation of the Integrity of Electronic Records*, 17–18, 76). However, the remarks here apply to all records whose creation is procedurally separate from the activity they describe, irrespective of legal status.

## Persistent Representations

In view of these difficulties, it may be appropriate to suggest an alternative approach. The final part of this paper proposes an interpretation of records as a kind of *representation*. It considers the nature of representations, explores the notion that records are *persistent representations of activities*, and looks briefly at other forms of representation encountered by archivists and records managers.

A vast literature on representation extends from the work of Thomas Hobbes and René Descartes in the seventeenth century to innumerable essays by writers and scholars of the twentieth and twenty-first centuries. Representation is an issue in many disciplines, including art, computer science, film and media studies, history, linguistics, mathematics, philosophy, psychology, and semiotics, to name but a few.<sup>74</sup> At a very general level, these disciplines share a consensus about what is meant by a *representation*. Representations are “things that stand for something else,” and are usually assumed to have some kind of correspondence to the things they represent.<sup>75</sup> This is not to say that representations lack

<sup>74</sup> The range and variety of recent literature can be gauged from the following. In philosophy: Michel Foucault, *The Order of Things* (London: Tavistock, 1970); Jerry A. Fodor, *Representations: Philosophical Essays on the Foundations of Cognitive Science* (Cambridge, Mass.: MIT Press, 1981); Hilary Putnam, *Representation and Reality* (Cambridge, Mass.: MIT Press, 1988); Robert Cummins, *Representations, Targets, and Attitudes* (Cambridge, Mass.: MIT Press, 1996); Claire Colebrook, *Ethics and Representation: From Kant to Post-structuralism* (Edinburgh: Edinburgh University Press, 1999); Emma Borg, ed., *Meaning and Representation* (Oxford: Blackwell, 2002); Hugh Clapin, ed., *Philosophy of Mental Representation* (Oxford: Clarendon Press, 2002). In linguistics: Antoine Culioli, *Cognition and Representation in Linguistic Theory* (Amsterdam: John Benjamins, 1995); Edwin Williams, *Representation Theory* (Cambridge, Mass.: MIT Press, 2003). In psychology: Alberto Greco, “The Concept of Representation in Psychology,” *Cognitive Systems* 4 (1995): 247–56; Ilona Roth and Vicki Bruce, *Perception and Representation: Current Issues*, 2nd ed. (Buckingham, England: Open University Press, 1995); Philip Van Looke, ed., *The Nature of Concepts: Evolution, Structure and Representation* (London: Routledge, 1999). In anthropology: John Van Maanen, ed., *Representation in Ethnography* (Thousand Oaks, Calif.: Sage, 1995). In history: F. R. Ankersmit, *Historical Representation* (Stanford, Calif.: Stanford University Press, 2001). In art: Ernst Gombrich, *Art and Illusion* (London: Phaidon, 1960); Nelson Goodman, *Languages of Art: An Approach to a Theory of Symbols* (Indianapolis: Bobbs-Merrill, 1968); John Willats, *Art and Representation* (Princeton, N.J.: Princeton University Press, 1997); Richard Wollheim, “On Pictorial Representation,” in *Richard Wollheim on the Art of Painting*, ed. Rob Van Gerwen (Cambridge: Cambridge University Press, 2001). In photography and film studies: Robert Wicks, “Photography as a Representational Art,” *British Journal of Aesthetics* 29 (1989): 1–9; Bill Nichols, *Representing Reality* (Bloomington: Indiana University Press, 1991). In management and organization theory: Simon Lilley, Geoffrey Lightfoot, and Paulo Amaral, *Representing Organization: Knowledge, Management and the Information Age* (Oxford: Oxford University Press, 2004). Interdisciplinary studies include Roland Barthes, *The Responsibility of Forms: Critical Essays on Music, Art, and Representation* (New York: Hill and Wang, 1985); George Levine, ed., *Realism and Representation* (Madison: University of Wisconsin Press, 1993); Jonathan Potter, *Representing Reality: Discourse, Rhetoric and Social Construction* (London: Sage, 1996); Stuart Hall, ed., *Representation* (London: Sage, 1997); Bruce Clarke and Linda Dalrymple Henderson, eds., *From Energy to Information: Representation in Science and Technology, Art, and Literature* (Stanford, Calif.: Stanford University Press, 2002).

<sup>75</sup> Richard Bernheimer, *The Nature of Representation* (New York: New York University Press, 1961), 34; Stephen E. Palmer, “Fundamental Aspects of Cognitive Representation,” in *Cognition and Categorization*, 262, 266; Karl Bühler, “The Key Principle: The Sign-character of Language,” in *Semiotics: An Introductory Anthology*, ed. Robert E. Innis (Bloomington: Indiana University Press, 1985), 72; Allan Paivio, *Mental Representations* (New York: Oxford University Press, 1990), 16. The word *representation* is also used as a noncount noun, to refer to the process of representing or the concept of being a representative of some group or individual. Our chief concern is with *representation* as a count noun having a plural form.

complexity. As W. J. T. Mitchell wrote in 1990, “representation is an . . . elastic notion which extends . . . from a stone representing a man to a novel representing a day in the life of several Dubliners.”<sup>76</sup> Different representational systems operate in different contexts. Nor is it to say that representation is uncontroversial. Debate is abundant and vigorous, but on the whole the arguments are not about what is meant by the term, but whether representations have validity in given situations, how representational schemes are implemented, and in what way one entity or type of entity can be a representation of another.

Perspectives vary across disciplines, as might be expected, and different explanations are offered of the nature of the correspondence between representations and their referents or targets (the things they represent). For example, the view of representation in studies of photography and documentary film-making has been heavily influenced by postmodernist ideas, and the current trend is to emphasize the artificiality of representations in these media rather than their apparent objectivity. However, interest in representations is not limited to disciplines influenced by postmodernist or relativist thinking. Information technology, a discipline where cultural relativism barely impinges, is concerned with systems for representation of data. In art, discussion of different modes of representation began long before relativism became fashionable; even the current debate about whether abstract art can be described as representation has its origins in the early twentieth century. In many scientific fields, representations result from attempts to create analogs of natural phenomena unavailable to normal channels of perception. Psychologists are concerned with *mental* representations: broadly, with systems that are assumed to represent aspects of the external world within the human head. Philosophers engage with all these questions at a theoretical level, and some also debate whether concepts of representation may be flawed if they presuppose a reality whose existence is questionable.

The idea that records are representations is not wholly new. It can be found, for example, in Italian archival theory.<sup>77</sup> However, it has been at best a minor strain in the English-language discourse, and its potential as a professional concept has remained largely undeveloped. As a starting point for further exploration, Figure 1 offers some basic propositions about representational

<sup>76</sup> W. J. T. Mitchell, “Representation,” in *Critical Terms for Literary Study*, ed. Frank Lentricchia and Thomas McLaughlin (Chicago: University of Chicago Press, 1990), 13.

<sup>77</sup> Maria Guercio, “Definitions of Electronic Records, the European Perspective,” *Archives and Museum Informatics* 11 (1997): 221; Paola Carucci, *Terminology and Current Records* (2000), available at [http://www.ica.org/sites/default/files/terminology\\_eng.html](http://www.ica.org/sites/default/files/terminology_eng.html). For a non-Italian perspective, see Elisabeth Kaplan, “Many Paths to Partial Truths: Archives, Anthropology, and the Power of Representation,” *Archival Science* 2 (2002): 209–20.

<i>Representational systems as understood in cognitive science</i>	<i>Exemplification in records and record systems</i>
There is usually a variety of ways of representing any given phenomenon, and it is necessary to understand the nature of any particular representational type before it is possible to draw appropriate conclusions about the world that it represents.	A record may not be the only representation of a given activity. The formal minutes of a board meeting, the secretary's shorthand notes, and the rough jottings made by a board member during the meeting are all representations of the same activity, but represent it in different ways. Knowledge of the context of each record is essential to its understanding.
There are constraints on what any representational system can represent. One or more of the properties of each phenomenon will be displayed in its representation, but it is almost certainly impossible for all to be displayed in a single representational system. Depending on the nature of the system, some properties may be difficult to represent, and some may be represented more successfully than others.	Records and record systems primarily expound those aspects of activity that can be captured in writing or audiovisually. Some aspects of an activity may be unrepresentable, or only partially representable, in a record.
Most representational systems provide some consistency in the way they model any given property.	In most record systems, form consistently follows function.
A representational system may model properties conventionally (i.e., using means that depend on external conventions for their interpretation) or iconically (using visible resemblance, or other non-arbitrary means inherent within the representation). Sometimes both methods are used.	Records may use language (words, numbers, and/or other symbols) or visual imagery, or possibly a combination of the two.
Representational systems typically model not only individual elements in the world they represent, but also some or all of the relationships between those elements.	The design of record systems (in particular, the use of levels of description and the structural relation between units of description at any single level) is intended to correspond to systematic relationships in the world where the records are or were created.
The way relationships are expressed in representational systems is often symbolic of, rather than isomorphic to, the nature of those relationships in the "real" world.	Relationships between records are expressed in schemes of classification and arrangement, but at best these provide only an approximation to the complexity of the records creation environment.
Representations can be used as means of studying the phenomena they represent (as in many scientific fields), but can also be objects of study in their own right (as, for example, in art or literature).	Users commonly seek to explore or exploit the value of records as representations of past events, but older records in particular are also frequently studied in their role as cultural artifacts.

FIGURE 1. Representational Systems and Records

systems as scholars in the field of cognitive science understand them,<sup>78</sup> and maps them to aspects of records and record systems as commonly understood by archivists and records managers.

There are many kinds of representation, and not all are records. The reflection of the moon in the still water of a pond is a representation, but it is not a record. The graphic designs on road signs are also representations, but again they are not records. Language itself is often said to be a form of representation. Other examples of representations are banknotes, charts, diagrams, models, statues, pictures, gestures, dramatic performances, and musical notations. In fact, representations are all around us. To differentiate records from other kinds of representation, records can be characterized as *persistent representations of activities, created by participants or observers of those activities or by their authorized proxies*.

The first attribute in this characterization is that records have persistence. Not every representation is persistent. The reflection in the pond, the reading on the speedometer of a car, the unsaved document residing only in a computer's temporary memory are not persistent. A persistent representation is one with the capacity to endure beyond the immediate circumstance leading to its creation. Persistence need not imply survival without limit of time. Records may not last forever and decisions may be made to destroy them. But records are persistent in the sense that they endure beyond the temporal ending of the activities they represent. Their durability gives them the potential to be shared and passed on across space and time.<sup>79</sup>

The second attribute indicates what kind of things are represented and suggests that records can be characterized as representations of activities. Not all representations represent an activity. Statues, road signs, and calendars are all examples of persistent representations but, unlike records, they do not normally represent activities. However, the universe of activities that records represent need not be restricted to business transactions as proposed by Bearman;<sup>80</sup> it embraces the full range of deeds and actions humans undertake. Records can represent almost any activity, including activities performed by mechanical devices on human instructions.

<sup>78</sup> Palmer, "Fundamental Aspects of Cognitive Representation," 262–72, 290–7; Paivio, *Mental Representations*, 16–19; Cummins, *Representations, Targets, and Attitudes*, 91–96, 109–11. These propositions are not beyond dispute, but are indicative of views commonly held by cognitive psychologists and philosophers of mind.

<sup>79</sup> Characterizing records as "persistent" is preferable to the statements in many definitions that a record is something "set aside" or consciously preserved. Effective records management requires an appraisal process to decide what should be captured into a recordkeeping system, but acts of capture do not determine whether particular entities are records. A record is still a record even if it remains in someone's desk or briefcase and is never captured into a formal recordkeeping system. See Yeo, "Concepts of Record (2): Prototypes and Boundary Objects," forthcoming.

<sup>80</sup> Bearman, *Electronic Evidence*, 15–17, 40–41. Space does not permit full discussion of the meaning of *activities* or their relationship to functions, processes, and transactions; for an exploration of these questions, see Shepherd and Yeo, *Managing Records*, 2–3, 49–57.

In the case of dispositive records—records that use an accepted form of words to give effect to a transaction or other activity—legal or juridical systems recognize that the action is achieved by the creation or transmission of a written representation of the action itself. Once the representation has accomplished this task, its continuing existence provides evidence or memory of what has occurred. Many other records work in much the same way. Business letters, for example, may not be recognized as dispositive by students of diplomatics because their written form is not required by juridical systems,<sup>81</sup> but their *modus operandi* is similar; acts of making commitments, statements, orders, or requests are effected by creating written representations of those acts and transmitting them to the appropriate recipients; the representations persist after the activities have been performed. There are also what might be called “preparatory” records, typically in the form of drafts representing work in progress but not yet finalized. In the case of a probative record, it can be argued that two tiers of activity are represented: the activity described and the activity of the creator in describing it. The former is procedurally separate from the creation of the record; the latter is intrinsic to it.

The final attribute is that records are created by persons or devices that participated in or observed the represented activity or by persons authorized to act as their proxies. Records are normally created by participants or observers, either while an activity is in progress or after it has concluded. Human participants and observers may not be impartial or objective witnesses, but they have firsthand knowledge of the activities concerned, a level of knowledge unavailable to those who did not experience the activity. Paintings of events in ancient Roman history, written accounts of those events by modern scholars, and the text of Shakespeare’s *Julius Caesar* are all persistent representations of activities, but have not been created by participants or observers and are not records of the activities in question. In general, even when based on information supplied by participants or observers, representations produced by third parties are not records of the activities they describe, although they may be construed as records of the communication between the producers of the representations and their informants, and of the creative efforts inspired by this communication. However, some records are compiled by clerks, lawyers, or other officials who are not party to the activity but act at the behest of, or have authority over, a participant or observer. Such cases include records produced by a secretary acting on instructions from a manager, and records produced by public officials such as registrars of births and deaths, who do not themselves observe the events they register but demand the cooperation of others who do observe them. Records of this kind are created by proxies and normally have to be

<sup>81</sup> Duranti, *Diplomatics*, 67–70.



authenticated by the participants or observers; without such authentication they remain representations of activities, but their status as records may be jeopardized.

Characterizing a record as a kind of representation should be acceptable to those who look to records to provide a mirror of past events, but need not be incompatible with the views of those who insist that many aspects of the past are irrecoverable.<sup>82</sup> The activities that records represent are gone; records allow us a picture of them, created or authenticated by those who were present when the activities occurred, but it is still necessarily an imperfect picture. This caveat is to be expected, given what we know of representational systems as delineated in Figure 1. No representational system captures the full complexity of the targets it seeks to represent. In Mitchell's words, "every representation exacts some cost, in the form of lost immediacy, presence, or truth."<sup>83</sup>

A portrait, for example, represents only the artist's view of one moment in the life of its subject. Facial features and perhaps clothing are depicted, but merely from a single viewpoint; emotions or feelings can only be shown indirectly and mental processes scarcely at all. So it is with records. The inner thoughts and feelings of the participants in an activity, their unstated assumptions, their tacit knowledge of the environment in which they operated are all unknown or at best obscurely hinted at in the surviving record. The widow's letter mentioned by Higgs does not capture the full range of emotions she must have felt when pleading for a pension. It sets out the account of her life that she wished her potential benefactors to hear, but is silent about the motives that led her to emphasize particular aspects of her situation or to describe them in the way she did.

Probative records introduce a further level of opacity. Medical case notes, for example, purport to describe what happened when patients were diagnosed or treated, but their content is largely determined by the narratives chosen by healthcare professionals, the classifications selected by clinical coders, and the cultural and organizational contexts in which these people worked.<sup>84</sup> Some would argue that the resulting representations tell us as much about these

<sup>82</sup> The inaccessibility of any past reality has been frequently asserted by Verne Harris, following his reading of Derrida. See for example Verne Harris, "Claiming Less, Delivering More: A Critique of Positivist Formulations on Archives in South Africa," *Archivaria* 44 (1997): 135; "The Archival Sliver: Power, Memory, and Archives in South Africa," *Archival Science* 2 (2002): 65. For alternative viewpoints, see Richard Dyer, *The Matter of Images: Essays on Representation*, 2nd ed. (London: Routledge, 2002), 3: "Because one can see reality only through representation, it does not follow that one does not see reality at all. Partial, selective . . . vision of something is not no vision of it whatsoever"; Carlo Ginzburg, *The Judge and the Historian* (London: Verso, 1999), 17: "Every representation is constructed in accordance with a predetermined code. To gain direct access to historical reality . . . is impossible. . . . To infer from this, however, that reality is unknowable is . . . unsustainable in existential terms and inconsistent in logical terms."

<sup>83</sup> Mitchell, "Representation," 21.

<sup>84</sup> Marc Berg and Geoffrey Bowker, "The Multiple Bodies of the Medical Record: Towards a Sociology of an Artifact," *Sociological Quarterly* 38 (1997): 513–37.

cultural influences as about the diagnosis and treatment of patients. For those who emphasize the extent to which record systems themselves determine the construction of the meaning of the past, seeing records as representations need not imply any acceptance of positivist notions of certainty.

Equally, for those less troubled by cultural-relativist concerns, the representational view of records appears consistent with the precepts of international standards and published guidelines advocating the capture and maintenance of records that represent activities as fully and as accurately as possible.<sup>85</sup> While critics may deny that accuracy can be measured objectively, or even insist that the concept of accuracy has no meaning, legislators, regulators, and auditors will continue to demand accurate records, and organizations concerned about accountability will seek to maintain records that faithfully represent their operations. In the societal context of government and business, these are legitimate requirements.

Representation is never perfect, and is always constrained by the nature of whatever representational system we employ. Within the limits of any particular system, representational accuracy may be said to occur when the properties and relationships expressed in the representation match the properties and relationships of the represented objects to the full extent that the system allows such matching to take place. How far this can be measured, and in what ways, again depend on the nature of the system. In record systems, as in other representational systems, some representations are likely to be more accurate than others.<sup>86</sup> The greater the distance in time and space between the record and the activity that gave rise to it, the more difficult the measurement of accuracy becomes. Nevertheless, even those who insist that accuracy is unquantifiable should acknowledge that records managers must strive to ensure that records can do the job that society requires of them. An organization where the records manager has implemented systems that discourage creation of misleading records, maintain records in good order, and protect them against loss or damage, will have more effective representations of its activities than an organization where no such systems are in place.

Of course, when we look at records it is not only activities that appear to be represented. We can see representations of people, places, or corporate bodies; commodities and sums of money; dates and times; thoughts, wishes, conditions, rights, obligations, and so on. Most of these phenomena are represented

<sup>85</sup> See for example State Records New South Wales, *Standard on Full and Accurate Records* (2004), available at <http://www.records.nsw.gov.au/recordkeeping/docs/standard%20on%20full%20and%20accurate%20records.pdf>. Cf. ISO 15489-1:2001, *Records Management*, sec. 7.2, which asserts the need for "full and accurate representation."

<sup>86</sup> For the idea that representations vary in accuracy, see Mitchell, "Representation," 21; Cummins, *Representations, Targets, and Attitudes*, 108; Dennis W. Stampe, "Toward a Causal Theory of Linguistic Representation," *Midwest Studies in Philosophy* 2 (1977): 48, 50-1.

verbally (people and places, for example, are usually represented by words indicating their names), but some may be represented by numbers, symbols, or images. Normally the representations of these phenomena are subordinate to the representation of the activity itself. They may be present to indicate the content of the activity (such as the goods being traded, the rights granted, or the property surveyed), or to supply or explain its context. In any case, they are embedded within the representation of the activity concerned.

Archivists and records managers also encounter representations when records are copied or when descriptive metadata are created. A photographic copy of the widow's pension application is a representation of a record, just as the record itself is a representation of the activity of the widow. A set of metadata describing a record is also a representation of the record;<sup>87</sup> and a set of metadata describing a copy is a representation of the copy. There is often a chain of representations, in which one representation represents another. The widow's activity is represented throughout the chain, even in the metadata describing the copy, which are at the furthest remove from the activity. As the philosopher Dennis Stampe points out, an object may be "indefinitely distant . . . from our representation of it," but can still be represented to us through the chain of representations.<sup>88</sup>

Just as records can represent their targets conventionally or iconically (see Fig. 1), so copies can represent records conventionally (as transcripts) or iconically (as images). Descriptions are always textual. But whatever their form, copies and descriptions, like all representations, introduce some loss. Descriptions of records inevitably reflect the perceptions of the describer and are subject to the limitations of language and the need for brevity. Images do not suffer in this way, but still lose much of the texture of their originals. Every link in the chain adds more distortion. In Hugh Clapin's words, "representational schemes carry significant tacit semantic baggage [which] means that every translation or recoding from one scheme to another must add to or change that tacit content."<sup>89</sup>

Despite their limitations, representations are often used as surrogates or substitutes for their originals. Indeed, the purpose of many representational systems is to provide surrogates for things that are unavailable or difficult to access, or are expected to become so. Records are used as surrogates for past activities

<sup>87</sup> For discussion of the representational character of archival description, see Wendy M. Duff and Verne Harris, "Stories and Names: Archival Description as Narrating Records and Constructing Meanings," *Archival Science* 2 (2002): 263–85; Elizabeth Yakel, "Archival Representation," *Archival Science* 3 (2003): 1–25.

<sup>88</sup> Stampe, "Toward a Causal Theory," 42. Linguists and developmental psychologists call this "meta-representation."

<sup>89</sup> Hugh Clapin, "Tacit Representation in Functional Architecture," in *Philosophy of Mental Representation*, ed. Hugh Clapin (Oxford: Clarendon Press, 2002), 309.

and events that otherwise lie beyond our reach. In their turn, transcripts or image copies can be used as surrogates for records unobtainable or inaccessible in their original form. Descriptions of records are often seen as pointers to originals rather than as surrogates for them, but descriptions can also play a surrogacy role, particularly when users need an overview of a fonds or collection so that they can eliminate items irrelevant to their research. After identifying items of potential relevance, some users may feel that consultation of detailed descriptions or copies will suffice, but others will not be content with anything less than handling the original. It is not difficult to see a parallel between these different attitudes to secondary representations and the varying degrees of satisfaction with regard to records themselves, as more or less imperfect representations of past events.

### Conclusion

A representational view of records deserves consideration. In the contemporary world, it is hospitable to audiovisual as well as textual records, and to records in the form of databases or three-dimensional objects as well as those in documentary form. It may be acceptable to both relativists and objectivists, and to those with differing professional backgrounds in the archives, manuscripts, and information management traditions.

The characterization of records as *persistent representations of activities, created by participants or observers or their authorized proxies* formally complies with the Aristotelian rules for a definition with a *genus* and *differentia*. Reasons for creating or keeping records are not specified, and their role in providing evidence, information, or memory is not mentioned, since no statement of functions is required for the definition to be sufficient; but the representational view can encompass any or all of these affordances, since all are obtainable from a record defined in this way.

No claim is made that the view of records as persistent representations will be universally acceptable. Some critics may cite the “antirepresentationalism” of writers such as Richard Rorty and argue that representation itself is or should be a discredited concept.<sup>90</sup> Others may wish to employ a definition to stake out a position in professional debate, or to promote the importance of recordkeeping to a nonprofessional audience. In these situations, notions of representation will probably seem less forceful than definitions concentrating on evidence or information. In any case, it is legitimate to see records in different ways, and characterizing them as persistent representations is not intended to exclude other perspectives. Multiplicity of interpretation is both inevitable and welcome.

<sup>90</sup> Richard Rorty, *Objectivity, Relativism and Truth* (Cambridge: Cambridge University Press, 1991), 1–17. For a critique of Rorty’s “antirepresentationalism,” see Ankersmit, *Historical Representation*, 273–80.

Nevertheless, it can be argued that definitions that emphasize only evidence *or* information are limiting, privileging one set of claims and perceptions over another, and undervaluing the complexity of records. Emphasis on evidence is often intended to link recordkeeping to the worlds of law and corporate governance; emphasis on information suggests an alignment to librarianship or computing. A focus on memory perhaps implies an association with history or cultural identity. All these perspectives are valid, but none is comprehensive. The representational view of records is multidisciplinary and embraces a wide spectrum of understanding.