

Appraisal and Selection: Principles and Methods

Since Harold Naugler's 1983 RAMP Study, the issue of the appraisal of electronic records has been at the forefront of archival writings.¹ Reading this literature, the general consensus appears to be that the values and criteria of appraisal have not changed, but the methodology must be adapted to the new circumstances. More specifically, archival writers agree that appraisal needs to be conducted early in the records' life-cycle and more than once, and that it must involve a variety of professionals, including information technology specialists and the creators of the records.²

However, no part of this literature has concerned itself with the authenticity of electronic records. Yet, authenticity does represent a great challenge for the appraiser, who must be certain that the records acquired by the archival program or institution are indeed what they purport to be. Such an assumption could be easily made with records on traditional medium if their creator relied on them in the course of his affairs and if their unbroken custody was documented, but, with electronic records, this is no longer possible.³ Because of their manipulability, vulnerability and fragility, the authenticity of electronic records is constantly at risk, especially when they are transmitted across space and time and when they are migrated from an obsolescent system to a new one. Thus, authenticity can only be presumed for records whose processes of creation, maintenance and preservation respect certain pre-established authenticity requirements. In all other cases, authenticity must be verified.

The discussion that follows is based on the findings of the InterPARES (International research on Permanent Authentic Records in Electronic Systems) project, a collaborative, multidisciplinary research endeavour aimed at developing the theoretical

and methodological knowledge necessary for the long-term preservation of the authenticity of electronic records.⁴

In light of the definitions of record and of authenticity developed by the InterPARES Project, assessing the authenticity of a record requires establishing its identity and demonstrating its integrity. The question for us is “who should be responsible for such an assessment?” The archivist or the researcher? Traditionally, archivists have rejected such responsibility. If they were asked to declare a record authentic, they would only go as far as to declare that a record in their custody is as authentic as it was when transferred to the archives. In a 1949 article, Herman Kann wrote that, if a researcher were to request a declaration that a document is genuine, the archivist should firmly refuse to issue it, because this kind of interpretation is not part of its responsibilities.⁵ Thus, the assessment of the authenticity of records has traditionally been a responsibility of the researcher. This is perfectly consistent with archival theory and with the impartiality that it accords to the professional archivist. The only important role archivists have with respect to authenticity is to describe the records in their custody in context, by making explicit, freezing and perpetuating their relationships with their creator and among themselves: this elucidation of the records in their various contexts is one of the primary instruments of any researcher who wishes to assess the records’ authenticity. Besides archival description and certification of the authenticity of copies of records in their custody, archivists have traditionally held no other role with respect to the authenticity of records, especially when it came to appraisal.

Archival theory accepts selection only in the measure in which its process respects the characteristics of the records (that is, their naturalness, impartiality,

authenticity, interrelatedness, and uniqueness) by not interfering with them when assigning value. In other words, as long as the archivist does not import into his function elements of personal judgment, the selection of records for permanent preservation is a legitimate archival endeavor. In this context, the assessment of the authenticity of records is an activity that risks compromising the impartiality of the records by both alerting the creators to their inherent value, and interpreting the records' formal elements and evaluating their processes of creation and maintenance. Also archival practice has traditionally rejected the assessment of the authenticity of the records as part of appraisal, on the grounds that it would make appraisal far too laborious and time consuming. However, this common stance of archival theorists and practitioners could be held only because, with traditional records, the documents entering an archival institution or program were physically the same that had been made or received and set aside by their creator or legitimate successor and evaluated by the archivist in the scheduling process. Thus, the assessment of authenticity could be easily delegated to future researchers, who would be able to analyze the documents under scrutiny in their original instantiation, that is, in the same form and status of transmission they had when first made or received and set aside. This is no longer the case.

Electronic records undergo several changes from the moment they are generated to the moment they become inactive and are ready for disposal. Some of those changes are intentional. Information technology is in a constant state of development. Records creators continually update their systems and the live documents contained in them, at times with minimal consequences for the form, functionality, organization and metadata of the records, other times with dramatic consequences. The latter situation is more likely

to occur when records generated in an obsolete system are migrated to a new one. In addition to intentional changes, inadvertent changes occur, simply because of the fact that it is impossible to maintain an electronic document; it is only possible to store its digital components in a way that the document can be reproduced when needed. A digital component is a digital object that contains all or part of the content of an electronic record, and/or data or metadata necessary to order, structure, or manifest the content, and which requires specific methods for storage, maintenance and preservation.⁶ In any case, every time an electronic record is reproduced from its digital components, it is slightly different from the previous time. This happens because there are three steps in the reproduction of an electronic record. The first step is to reassemble all the record's digital components in the correct order. The second step is to render the components, individually and collectively, in the correct documentary form⁷. The third step is to reestablish the relationships between the record in question and all the other records that belong in the same archival aggregation (e.g., series, file). This requires, first, to reestablish the structure of the archival aggregation, and then, to fill it with the records that belong to it. Each step involves a margin of error. Considering that the processes of storage and retrieval by re-production imply transformations both physical and of presentation, the traditional concept of unbroken custody must be extended to include the processes necessary to ensure the unaltered transmission of the record through time, and must therefore become an "unbroken chain of preservation," which begins when the records are created respecting established authenticity requirements, and continues with the documentation of all the changes to the records and of the processes of appraisal, transfer, reproduction and preservation. However, the most important consequence of this

situation is that the appraisal function must include appropriate activities aiming at ascertaining the authenticity of the records considered for selection, monitoring it, and attesting it.

The appraisal of electronic records must therefore comprise the following activities: compiling information about the records and their contexts, assessing the value of the records, determining the feasibility of preserving them, and making the final appraisal decision. The information that needs to be gathered about the records includes information on the context of creation and on the technological context, which establishes the basis upon which the records are considered authentic. The assessment of the value of the records involves assessing both the continuing value of electronic records and their authenticity. Determining the feasibility of preserving electronic records involves deciding whether the digital components embodying the essential elements that confer identity to and ensure the integrity of the records can be preserved, given the current and anticipated technological capabilities of the archives. This determination process comprises three steps. The appraiser identifies both the record elements containing informational content and those elements that need to be preserved according to the authenticity requirements that constitute the terms of reference for the archivist. Then, the appraiser identifies where these crucial record elements are manifested in the digital components of the electronic record. Finally, the appraiser reconciles these preservation requirements with the preservation capabilities of the institution that is responsible for the continuing preservation of the body of records being appraised. The appraisal decision comprises two parts: a determination of what must be transferred to the archives, including the list of the digital components of each record, and a determination of how

and when this should happen, including the identification of acceptable formats and methods of transmission to the archives.

Once appraisal is concluded, the records selected for preservation must be continually monitored till the day of the transfer, especially for changes in their technological context. In some cases it may be necessary to repeat the appraisal because of changes that can affect the feasibility of preservation. In most cases, however, monitoring produces minor revisions to the documentation on the selection and to the terms and conditions of transfer.

As mentioned earlier, the appraisal function, inclusive of the monitoring activity, uses the authenticity requirements formally adopted by the acquiring archival institution as terms of reference. It does so to assess both the authenticity of the records and the feasibility of their preservation. A presumption of authenticity will be based upon the number of requirements that have been met and the degree to which each has been met. If the presumption of authenticity is too weak, a verification of authenticity will be necessary. A verification of authenticity is the act or process of establishing a correspondence between known facts about the records and the various contexts in which they have been created and maintained, and the proposed fact of the records' authenticity. It involves a detailed examination of the records in all their contexts and of reliable information available from other sources (audit trails, backups, copies preserved elsewhere, textual analysis). The resulting assessment may affect the determination of the records' value. This information is also crucial to understanding and using the records once they have been transferred to the preserver. Future users of the records must know how well founded a declaration of authenticity of the records is, and what information

that declaration is based on in order to make their own assessment, long after the fact, at a time when accumulating relevant information will be difficult, if not impossible. If the appraiser has good reason to suspect that the records no longer reflect what they were at the time of their creation and primary use, he or she may decide not to preserve them.

However, even when the appraiser determines that the records are to be considered authentic, the final appraisal decision must take into account the feasibility of preservation, as noted earlier. During the assessment of authenticity, the appraiser establishes what the requirements are for preserving such authenticity intact. The need to reconcile preservation requirements with the archival institution's preservation capabilities produces two bodies of information that inform the final appraisal decision. The first is information about the digital components to be preserved, which would explain where the records formal elements that are vital for maintaining authenticity are manifested in the potentially various components of the electronic records, and what technical information about those components would be required for subsequent preservation activities. The second type of information indicates the kind of software needed to view the records or what data are necessary for retrieval purposes. The feasibility of preserving a given body of authentic electronic records must be based on current or anticipated financial and technical capabilities of the institution. The outcome of this process is an appraisal decision, which sets out the disposition of the records. It is important that there be documentation explaining and justifying the appraisal decision. It should be clear why some records were preserved and others were not, both for accountability purposes and so that future users of the records can understand them. In fact, this documentation constitutes permanent records of the archives that must be

accessible to researchers wanting information about appraisal and about records selected for preservation. Information about appraisal decisions is also a crucial mechanism for implementing the monitoring activity described earlier. In addition, it is important that the records selected for preservation be packaged at the moment of transfer with the necessary information for their continuing preservation, including the terms and conditions of transfer, identification of the digital components to be preserved, and associated archival and technical documentation needed for their treatment. This is the information that is compiled and recorded during the various stages of appraisal and monitoring.

Thus, one may conclude that, with electronic records, the function of appraisal has changed in four fundamental ways: first, the appraiser must assess the authenticity of the records considered of continuing value; second, the appraiser must determine the feasibility of the preservation of the authenticity of the records; third, the appraisal decision must be made very early in the life of the records; and, fourth, the appraiser must constantly monitor the records of the creator and, if warranted by the changes that they have undergone, revise the appraisal decision.

Are these changes of the appraisal function of a methodological or of a theoretical nature? In other words, is the appraisal process required for electronic records a different way of doing the same thing or does it reflect a radical alteration of the nature of the appraisal function? I would say that the former statement is true and that appraisal theory has not changed: its purpose is still that of preserving a concentrated, essential record of the past that maintains intact all its archival characteristics of naturalness, impartiality, interrelatedness, uniqueness, and, most importantly, authenticity, without which records

could not be trusted either as evidence or as sources of information. However, the methodological changes are quite radical and require that archivists be involved with the creators on an ongoing basis and walk the very thin line that separates a competent guidance to proper creation and maintenance procedures from outright interference in the making and keeping of the records. It is a difficult balancing act, vital to the protection of the impartiality of the records, but it is possible to accomplish it if organizational, national and international policies, strategies and standards are issued to support the work of the archivist. At the moment, though, the greatest obstacle to the implementation of the new appraisal methodology is still presented by the traditional archival profession and its resistance to get involved in activities that it does not regard as archival. To overcome this resistance may require several years. It is hoped that in the process we will not lose a significant part of the documentary heritage of our time.

¹ Harold Naugler: *The archival appraisal of machine readable records: a RAMP study with guidelines* (Paris, UNESCO; 1983).

² For a review of the literature on the subject, see Luciana Duranti: "The thinking on appraisal of electronic records: its evolution, focuses and future directions," *Janus*, no. 2 (1997), 47-67. See also Terry Eastwood, Shadrack Katuu, Jaqueline Killawee: "Appraisal of Electronic Records: A Review of the Literature in English," *The long-term preservation of electronic records: Findings of the InterPARES Project*, Appendix 3, available at www.interpares.org (date of publication: 02/09/2002).

³ An electronic record is defined as a record that is made or received and used in digital form.

⁴ The complete findings are published on the InterPARES project website at www.interpares.org. They are also printed in Luciana Duranti ed., *The Long-term Preservation of Authentic Electronic Records: The Findings of The InterPARES Report* (San Miniato: Archilab, 2004).

⁵ Herman Kann: "A Note on the Authentication of Documents," *The American Archivist*, vol. XII, no. 4 (1949), 363.

⁶ A digital component is distinguished from the extrinsic and intrinsic elements of form, which are those parts of a record that constitute its external appearance and convey the action in which it participates and the immediate context in which it was created.

⁷ Documentary form comprises the elements of the record that constitute its external appearance and convey the action in which it participates and the immediate context in which it was created.