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The Appraisal Task Force: The Model and Key Findings

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The clearest exposition of the work of the Appraisal Task Force is found in the series of conceptual functional models of appraisal we developed. Having determined that the function we were analyzing is broader than simply appraisal as traditionally understood, we defined this high level activity as "Select Electronic Records," encompassing both appraisal decisionmaking and the disposition of records either by destruction or by transfer to a preserver. [As explained by Terry Eastwood,] The function model developed by the Appraisal Task Force shows activities within boxes. These activities receive inputs on the left side, and outputs of the activities emerge from the right side of the box. The activities are affected by controls that are shown as arrows at the top of the box. Finally, the activities are carried out through mechanisms shown as arrows at the bottom of the box. Persons, facilities, and computer equipment and software are all necessary to carry out the "Select Electronic Records" function. The modeling process involves a progressive decomposition of activities. The task force did not decompose all the activities to the same detail, but focused on functions that needed more clarification in order to understand the selection process.

The first activity in the model is "Manage the Selection Function." This activity provides a framework of policies and procedures guiding the selection function. It ensures that the preserver's requirements for selection are met effectively and efficiently. This management process develops the appropriate appraisal strategies and rules and procedures for the disposition of electronic records. In developing these strategies, rules, and procedures, the management function uses information about the context of records

as well as information about previous appraisal decisions and the disposition of records. In other words, the management function is not a static function but is constantly informed and refined by feedback from the appraisal and disposition activities themselves. At the same time, the function is constrained by various external needs and requirements. First, there are the needs of the records creators and of society as a whole with regard to records. These are familiar concepts in archival appraisal, represented in Schellenberg's concepts of primary values and secondary values. There are also always specific legal requirements that affect the selection function. These three external factors will vary from situation to situation in their influence on judgments made in appraisal. However, the principles of archival science, and specifically the requirements for authenticity, are consistently important controls on the selection process in all environments. While judgment is involved in applying these principles to selection decisions, it is not a value judgment in the same way that judging continuing value of records is.

The first output of the management function is a set of appraisal strategies comprising:

- criteria for appraisal
- guidelines on how to apply authenticity requirements
- procedures for carrying out appraisal
- guidelines for reporting the results of appraisals
- procedures for reporting on appraisal activities

The second output of the management function is a set of rules and procedures governing the disposition of electronic records. The rules and procedures act as a control on the activity of carrying out the disposition of records. They include:

 procedures for carrying out disposition (for example, the roles and responsibilities of the creator and the preserver)

- rules for disposition (for example, acceptable formats for transfer or the means of transmission of records)
- procedures for reporting about disposition activities (for example, reporting on the character and volume of records acquired and/or destroyed)

The next activity to consider is the actual appraisal of electronic records. The Task Force has viewed appraisal as being made up of four distinct activities:

- compiling information about the records and their contexts
- assessing the value of the records
- determining the feasibility of preserving them
- making the appraisal decision

Any appraisal decision must be informed by information about the records, specifically information about the context of their creation, and (especially for electronic records) information about their technological context. It will also include compiling information that will allow the preserver to assess the grounds for presuming the records to be authentic. It is perhaps better understood as building a foundation of research about the records that will assist in other key activities. Certainly, for example, information drawn from the content of the records themselves is important in the assessment of the value of records.

The second activity in the appraisal process, assessment of the value of records, is at the heart of the appraisal process. The archivist answers the questions: "How valuable are these records? How important is it to preserve them?" The process of assessing value consists of three activities: (1) assessing the continuing value of electronic records, (2) assessing their authenticity, and (3) determining their value. The first activity results in a statement of the reasons why the records should or should not be preserved, according to the criteria established by the preserving institution. Such an activity naturally involves values and judgment and can be carried out differently in different national or intellectual traditions. The Appraisal Task Force model is designed to be applied in many different

contexts, and thus does not specify which criteria or values, strategies, and methodologies should be employed.

The second component in the valuation process is an assessment of the authenticity of the records being appraised. The appraiser must ensure that the records' identity is preserved and must ascertain the degree to which the records' creator has guaranteed their integrity by making sure that the records remain intact and uncorrupted. The questions to be asked of the records at this stage correspond to the "Benchmark Requirements Supporting the Presumption of Authenticity of Electronic Records" defined by the Authenticity Task Force of InterPARES. Answering them requires an indepth knowledge of the records, the electronic systems in which they reside or were created, and the wider context of their creation and use.

The first step in assessing authenticity is to compile evidence supporting the presumption of authenticity that will then be measured against the benchmark requirements. If that evaluation does not produce a high presumption of authenticity, the archivist must try to verify authenticity by other means, such as comparing different versions or copies of the records, examining system audit trails, or interviewing personnel involved in the creation, use, and preservation of the records. The resulting assessment may affect the determination of the records' value. That information is also crucial to understanding and using the records after they are transferred to the preserver. Future users of the records must know how strong the presumption of authenticity of the records is so that they can make their own assessments, long after the fact, at a time when accumulating relevant information will be difficult, if not impossible.

The determination of the value of records is based on the judgment of their continuing value and the assessment of their authenticity. Such a determination is not necessarily straightforward, however. There may be cases where the presumption of authenticity is fairly low, but the appraiser may determine that it is still important to preserve the records because the function that they document has a very high impact on society. Traditional archival theory has granted a presumption of authenticity to records if

their creator relies on them in the ordinary course of business. In the case of electronic records, however, we can expect to have to deal with cases where the records no longer reside in their original environment, however, (through conversion or migration, for example) it is necessary to determine whether what is being appraised is what originally existed and whether changes to the records have seriously impaired their ability to act as evidence of the activity that generated them. 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.

Assessing the value of the records is not enough, however. The appraiser must also determine the feasibility of preserving them as authentic records. For electronic records, this means that the appraiser must decide whether the digital components embodying the essential elements that confer identity and ensure the integrity of the records can be preserved, given the preserver's current and anticipated capabilities. Such a determination is based on the same type of information from the records and about the records that is used to assess their value, but it also requires knowledge of the preserver's current and anticipated capability to preserve electronic records. This information includes the state of preservation knowledge, hardware and software capabilities, staff expertise, and financial resources.

The activity of determining the feasibility of preserving authentic electronic records breaks down into three steps:

- The appraiser determines both the record elements containing informational content and those elements that need to be preserved according to requirements for authenticity, as formulated by the Authenticity Task Force's benchmark requirements.
- The appraiser identifies where these crucial record elements are manifested in the digital components of the electronic record.

• The appraiser reconciles these preservation requirements with the preservation capabilities of the institution responsible for the continuing preservation of the body of records being appraised.

The attempt to reconcile preservation requirements with preservation capabilities produces two bodies of information that inform the appraisal decision. The first is information about the digital components to be preserved, both information that would explain where the records elements 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. In a large relational database system, for example, the first kind of information might include the identification of specific tables that correspond to specific elements of form conferring both content and authenticity. The second body of information might indicate, for example, what type of viewer software would be needed to view scanned images within a system or what information in the image file headers could be exploited for retrieval purposes. The feasibility of preserving a given body of authentic electronic records would have to be based on current or anticipated finances and technical capabilities, Equipped with this information, as well as the valuation information articulated in the value assessment activity, the ultimate appraisal decision and documentation supporting it is made, in light of the preserver's appraisal strategies.

The determinations of value and feasibility come together in making an appraisal decision, which is never a simple mechanical process of balancing preservation capabilities against a preservation wish list. Decisions are made on a case-by-case basis. For example, there may be instances where records of extraordinary importance are difficult or expensive to preserve. Despite these constraints on the feasibility of preservation, therefore, the compelling case for preservation might cause the archivist to seek supplemental sources of funding to ensure preservation. Appraisal archivists have certainly considered the feasibility of preservation with paper records or particularly with film and photographic materials that need special facilities for storage. But most often

any consideration of the ability to preserve nonelectronic records involved only cost considerations, not issues of technical feasibility.

The outcome of this process is an appraisal decision, which sets out the disposition of the records. The decision is made up of two parts. First, it must list *what* must be transferred to the preserver, or disposed of in other ways—destroyed or transferred to an entity other than the preserver. Persons carrying out disposition need precise instructions and a list of digital components. In addition to the list of records and digital components, they must be provided with information specifying *how* and *when* disposition must be effected. This will include responsibilities of each party and details on other steps, such as a schedule for monitoring the appraised records.

Documentation explaining and justifying the appraisal decision is very important. It should be clear which records were preserved and which were not. Such documentation is vital for accountability purposes and so that future users of the records can understand them. Information about appraisal decisions is also a crucial feedback mechanism for those managing the selection function (especially in devising appraisal strategies and methodologies), and for other archivists engaged in appraisal.

After an appraisal decision is made and before disposition of the appraised records is undertaken, the records must be monitored for changes, particularly changes in their technological context, that might make it necessary to revise the appraisal decision. In some cases it might even be necessary to redo the appraisal, not because the appraiser questions the value of the records, but because changes to the records might affect the ability to preserve them over time. In most cases, however, the monitoring process will only result in minor revisions to appraisal documentation and to the terms and conditions of transfer. Nevertheless, it is an essential step in ensuring that the integrity of the records can be maintained until they are transferred to the preserver. This concept of monitoring the records is a new feature in the selection process for electronic records compared to paper records, which are not subject to the volatility of the technological environment that affects electronic records. It is also a particularly crucial process for electronic

records since the appraisal of electronic records is likely to be made at a time well before the records are actually transferred to the custody of a preserver.

The monitor operates within a framework established by specific appraisal strategies and acts upon the appraisal decision in the light of the circumstances of the records and their contexts. The monitor obviously needs to operate within the constraints of the terms of the appraisal decision and the information at hand about the appraised electronic records. Among other things, this information should identify the record(s) selected for preservation, provide technical information about the electronic system and the digital and record components in that system, specify a schedule for copying, transfer, or any other type of process which allows an authorized disposition to take place, and confirm these actions by an appropriate attestation from the authority with the competence to dispose of records officially.

The monitor assists in carrying out the disposition of appraised electronic records whenever the disposition takes place. The monitor prepares and submits crucial information updating the appraisal decision: information about the updated appraisal decision; updated information about the appraised electronic records themselves, especially, how they are manifested in the system; any other technical information required to effectively destroy those records that are not required to be preserved; and any other technical information required to acquire, copy, format, and otherwise prepare and package records for continuing preservation.

Effective monitoring maintains the productive tension between the functions of appraisal, carrying out disposition, and preservation. Monitoring ensures that the appraisal decisions and the information about the appraised electronic records meet the needs of carrying out disposition and preservation. Sound records in their digital components will be passed on to the preserver as a product of well-managed monitoring. Adjustments or minor change to the electronic records, either at the level of the record keeping system, or in the broader contexts of document, provenance, or technology may have a direct bearing on the implementation of the initial disposition of electronic

records. Such alterations or adjustments in the course of the ordinary business of the creator also may have continuing implications for subsequent dispositions. The monitor, therefore, regularly confirms that the decision and its related terms and conditions can be and are implemented. Updates to the appraisal decision and associated information about the appraised electronic records are sent to the disposer and to the managers of selection and preservation.

Major alterations to the records, or significant changes in the system, its platform and/or the context of its records might alter the circumstances of the records sufficiently that the original assessment of value and determination of feasibility are no longer sound grounds on which to continue the selection of electronic records for continuing preservation. The monitor should make a recommendation to redo the appraisal in the following circumstances: where major changes take place that cannot be addressed by adjustments to the terms and conditions in the original or updated appraisal decision; if the nature of the changes is deemed to be so significant that the intent of the original decision is altered; or if some other change has taken place which materially affects the terms and conditions of transfer for preservation.

It is, of course, impossible to predict whether there will be minor adjustments or major changes in the requirements for long-term preservation. However, an active monitor, reviewing circumstances and information, scanning the environment for changes, which affect preservation, will balance continuing preservation with ongoing needs for details at the level of element, component, and related metadata.

The final activity in the Select Electronic Records Model is "Carrying Out the Disposition of Electronic Records." This involves the preparation of electronic records

for disposition, such as transfer to a preserver or destruction; the preparation of the electronic records for transfer; and the transmission of electronic records. The first step, preparing electronic records for disposition, includes copying and, if necessary, formatting those records selected for preservation so as to prepare them physically for transfer, and/or, if such falls to the responsibility of the preserver, preparing records not selected for preservation for destruction, alienation to another entity, or such other disposition as has been determined in the appraisal decision. The outputs of this activity include electronic records selected for preservation and electronic records not selected for preservation, together with information about the disposition.

The next step is to package records selected for preservation 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. The relevant information should have already been compiled and recorded during the various stages of appraisal and monitoring. The task at this stage is to extract the information necessary for continuing preservation of the records from the mass of appraisal documentation, and packaging it with the records. There are two outputs from this activity: the electronic records themselves, prepared for transfer, and information about the electronic records prepared for transfer.

The final step in the carrying out of disposition is to transmit the records selected for preservation, with the information necessary to ensure continuing preservation, to the office responsible for the preservation function. The outputs of this activity include information about transferred electronic records and the transfer of electronic records selected for preservation. These electronic records are copied and, if necessary, formatted for transfer and sent to the office responsible for the preservation function.

Among the primary research findings of the Appraisal Task Force, I would highlight four in particular. First it is essential for the appraiser to assess the authenticity

of electronic records. For paper records, this was rarely done because of the general presumption that records were authentic if they were relied upon by their creator. But assessment and verification of the authenticity of electronic records according to the benchmark requirements set by the Authenticity Task Force is recommended.

The second finding is the importance of determining the feasibility of preservation. For electronic records this means that the appraiser must fully understand the technical details of the digital environment in which the records were created and maintained. The appraiser must determine how the elements of the records are manifested and identify the digital components to be preserved.

Third, it is important that electronic records be appraised early. This confirms what had been the prevailing opinion in the literature on the subject. Clearly, records must exist before they can be appraised, but the Appraisal Task Force model certainly permits the design of electronic record systems that will facilitate the appraisal process by, for example, incorporating disposition schedules in the system.

Finally, the importance of monitoring the appraisal decision is a key recommendation of the Task Force. While some records may be transferred immediately after an appraisal decision is made, other records may be appraised long before records selected for preservation are transferred to the preserver. The volatility of the digital environment requires that appraisal decisions be monitored over time to ensure that they will still be the correct decisions and have the correct documentation when the transfer to the preserver takes place.

The "Select Electronic Records" model developed by the InterPARES Appraisal Task Force identifies and describes conceptually the key activities in the appraisal and disposition of electronic records. The model was designed to provide key inputs to the Preservation Task Force's model—electronic records selected for preservation and information about electronic records selected for preservation, including the terms and conditions of transfer.

The work of the Appraisal Task Force has affirmed the importance of appraisal in archival work with electronic records. It has, indeed, demonstrated that early appraisal and careful monitoring of the appraisal decision is essential if we are to ensure the long-term preservation of authentic electronic records.