Sustainable, justifiable, repeatable: A digital preservation strategy using metrics-based (re)appraisal

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ABSTRACT

Appraisal has long been a source of intense debate in the archival community. Digital collections, affordable storage costs, and software tools now offer the opportunity to enhance appraisal strategies and move the archival appraisal discussion productively forward. In this poster, we propose an iterative, technology-assisted, metrics-based approach to appraisal as part of a digital preservation strategy. Developed in concert with a Capstone-based project to preserve email messages of enduring value at the University of Illinois, this multimodal approach integrates various traditional appraisal techniques with business performance metrics for the purpose of achieving growth that is sustainable using justifiable appraisal decisions, applying repeatable processes, and ultimately establishing measurable institutional value.

General Terms

Preservation strategies and workflows, theory of digital preservation, case studies and best practice.

Keywords

Archives, appraisal, business process improvement, capstone, digital preservation, metrics, mplp, reappraisal, sustainability.

1. BACKGROUND

The University of Illinois Records and Information Management Services (RIMS) office is currently engaged in a project to help its campus' archivists preserve email messages of enduring value beginning with those of its senior administrators. The underlying assumption is that the email messages of senior administrators are the modern equivalent of the traditional subject or general correspondence files which have long been determined to have enduring value for administrators and researchers alike. However, email presents unique challenges to archival accessioning including volume, file format, links, attachments, use for both personal and official communications, conversation threads, inconsistent filing, sensitive content, and ease of search and copying.

The volume of email content, mix of personal and professional usage, and an inability to rely upon diverse administrators to consistently identify messages of enduring value led the RIMS project to explore the Capstone approach developed by the United

States National Archives and Records Administration's (NARA) [1]. The Capstone approach offers an option for agencies to capture and preserve most of the email from the accounts of officials at or near the head of an agency without detailed consideration of the content. However, it is clear that far reaching preservation approaches can quickly become unsustainable if re-appraisal is not part of the process. While digital storage is relatively cheap, it is not free. In addition, the costs for processing and digital preservation workflows will increase as accessioned content increases. This increasing demand on limited resources places additional risk on high-value content. It is in this context that our metrics-based appraisal approach is proposed.

Upfront, the RIMS project plans to provide administrators with tools that can assist in making informed options to identify messages that are of a personal nature or that warrant access restrictions such as those containing sensitive information. Most messages will not be transferred to a digital archival repository managed by the University Archives until some period of time after the administrator has left their position. Once deposited, the messages are expected to be subject to a restriction period during which archivists would have the opportunity to apply archival processing techniques to the materials. Once materials are made available to researchers through usual and customary archival controls, usage statistics will be gathered to be included in a future re-appraisal stage of the digital content held by the University Archives.

2. APPRAISAL STRATEGIES

2.1 Traditional Appraisal

Traditional appraisal strategies for archival collections typically rely on the professional subjective opinion of an archivist based upon characteristics of the record such as current and anticipated use and functional value [2]. NARA's appraisal policy, for example, is fourteen pages in length and includes subjective guidance questions such as "How significant are the records for research?" [3]. An appraisal strategy that relies primarily on subjective evaluation can result in over-retention, underutilized holdings, and inconsistent guidance given to record creators. This can lead to archival holdings which are never accessed yet continue to consume archival resources while they fail to bring any value to the institution.

2.2 Proposed Metrics-Based Appraisal

An objective, justifiable appraisal process would benefit records creators, archivists, and researchers alike. How then can an archives sustainably curate its digital collections and enhance institutional value in both the short and long-term? The proposal is to minimize the subjective factors by intentionally over-
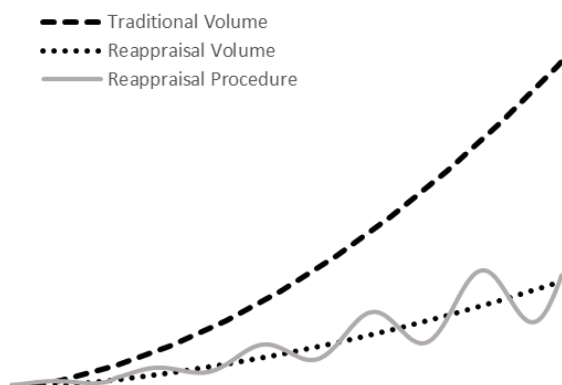
accessioning the digital records. Once accessioned, tools would be applied to assist in filtering and gathering use statistics. Regardless of the initial appraisal method applied, a metrics-based reappraisal approach can align existing resources and holdings with the institutional needs. Technology-assisted digital preservation should afford the opportunity to focus less on acquisitions and more on outreach and programming.

How is this accomplished? By combining archival principles such as "More Product, Less Process" (MPLP) with business-driven records management and performance standards, archivists can relax appraisal strategies at the point of acquisition and instead incorporate a recurring reappraisal stage to the management of their holdings. The reappraisal stage would include data from use statistics over time coupled with a "value score" assigned by the archivist at the time of reappraisal. These metrics will allow archivists to gauge value based on interest shown in particular collections or series, as well as their professional assessment of the significance of the materials.

After a predefined period of time, records series or collections which have low use statistics coupled with low value scores would be placed on a "watch list" for a period of a few years. While materials are on the watch list, if archivists feel the content was overlooked by users and warrants continued retention, they may engage in targeted outreach and programming to foster interest. At the end of the watch list period, records series that continued to be underutilized would be rated as having limited value and de-accessioned or relegated to an inactive status. In recognition of the archivists' professional judgment and the need to retain a human factor in any appraisal approach, at their discretion archivists could retain a subset of de-accessioned/ inactive status materials. The specific period of time between reappraisal decisions should be tailored to the specific needs and resources of the institution.

Figure 1. Traditional versus reappraisal volume growth over time.

2.3 Benefits
A metrics-based appraisal strategy provides many advantages. While not a perfect solution for every institution, it represents an approach which is workable while being more sustainable in an environment of explosive growth and limited resources as shown in Figure 1. In particular, mixed-value content such as email which is currently lost at an unprecedented scale can be more easily appraised by archivists and record creators alike. Administrative support of the archives may be more forthcoming if administrators find direct value in its contents. For instance, material not classically valued by archivists but which supports business functions and continuity may be easier to justify including in the digital repository. Metrics-based reappraisal allows collections to self-distill in an organic yet controlled manner that is reasonably consistent and repeatable between archivists. Metrics also provide support for both digital and analog preservation strategies and demonstrable value of the return on investment to the institution.

2.4 Sample Strategy
As an example, a preliminary appraisal decision may call for a ten year period during which use statistics are collected. If a particular series fell below the twentieth percentile of access over the ten year period, it would be placed on a watch list for the next ten years. During this time, the archivist can choose to conduct programming to promote interest in a topic related to the series. After twenty years, if the file still remains below the twentieth percentile, the archivist would prepare to de-accession the materials. At this point the archivist may elect to use his/her discretion to retain a percentage of the underutilized materials in the series due to its unique characteristics or some other clearly articulated criteria based on her/his professional judgment.

3. NEXT STEPS
We propose a metrics-based approach to appraisal as a case study for a project to preserve email messages of enduring value at the University of Illinois. We seek to refine the strategy through practical application and to provide lessons learned on its effectiveness for others that wish to implement a similar strategy within their organization. We will also explore simulated applications with other digital repository content to develop experience with a more broad range of digital materials.

4. REFERENCES
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