

# THE SELECTION OF SCIENTIFIC AND TECHNICAL RECORDS FOR PERMANENT RETENTION

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ABSTRACT. A small fraction of the enormous volume of records that are generated by research and development activities should be selected for permanent retention because of their potential value to future scientists, engineers, historians and others. The records are generated for many different purposes and in many different forms (not all are documents). There are, however, some basic principles that should be used in appraising the records so that the most appropriate of them are selected according to identifiable criteria.

## 1. THE PROBLEMS

The problems of the reviewing and archiving of records do not have a particularly high profile with either the administrators or the scientists and engineers in institutions that produce scientific and technical records. The first question anyone interested in, or responsible for, such matters is likely to be asked is 'why bother?'. Perhaps a quotation from the plinths of two statues outside the National Archives in Washington will suggest the answer: "The Past is Prologue. Learn from the Past".

The suggestions and ideas which follow are based on some years of experience working in England in various scientifically-oriented government departments whose records are subject to the Public Records Acts 1959 and 1962. It is thus an English experience and should be viewed as such, although the principles and criteria suggested are applicable across a far wider range of records.

Some of the more important problems associated with building a collection of records for permanent retention are:

(a) Status: the records of a particular institution may be governmental records, state records, company records, private records or a mix of any or all of these.

(b) Organisation: many institutions producing scientific and technical records have inadequate (or non-existent) registries. Individuals keep their own unorganised collections of papers and various groups within the institution keep files of, mainly, administrative material, which may be duplicated many times over by other groups. Identifying the main or source file on a particular subject under these circumstances is virtually impossible. In such an uncontrolled environment indiscriminate and uninformed destruction is

also much more likely to take place.

(c) Ownership: individual scientists tend to consider records relating to activities in which they are involved as 'theirs'. There is a tendency for records to migrate from one institution to another as people change jobs. The result is that some institutions do not have a complete, permanent record of the work performed by and/or funded by that institution. Intellectual property rights are of considerable importance in such circumstances and need to be addressed on a national - and an international - basis.

(d) Size: the quantity and range of scientific and technical records is enormous, as is the variety of their quality.

(e) Selection: who, within a particular institution, is responsible for the selection of records? How is it done and what criteria are used?

It is really the last problem which is discussed in the remainder of this paper. Reviewers must always bear in mind that the destruction of a record worthy of permanent retention is irreversible but, equally, the cost of preserving a record unworthy of permanent retention is high and will continue indefinitely. How can a reasonable balance be achieved between these two opposite truths?

## 2. CRITERIA FOR SELECTION

Before considering what criteria may be applicable to the selection for retention from a collection of scientific material, two points should be stressed since the originators of such records may not always recognise them.

(a) Records are seldom used in isolation, but are frequently consulted in conjunction with others, often from other departments within the same institution or from other, completely separate, institutions.

(b) Records are frequently used for research apparently unconnected with the purpose for which they were created.

Some criteria for selection are obvious and applicable to virtually any institution:

(a) Records needed for the conduct of the business of an institution - the operational or administrative needs - must be kept for at least as long as they are necessary to the efficient running of that business.

(b) Records with a legal value: deeds, contracts, etc.

(c) Records which must, by statute, be retained.

Other criteria are more evaluative and applicable only to certain institutions. They can best be generically described as identifying records with a potential research value:

(d) Records cited in institutional histories, particularly published histories; such records are often concerned mainly with the results of research and development.

(e) Raw data, particularly observational or experimental data, that are the basis for reduced (or smoothed) data and published material. Such data may exist as images on photographic plates or as other types of analogue records; now such data are usually recorded directly on

magnetic tapes or discs.

- (f) Records of legislative activities.
- (g) Records of notable events and people, causes célèbres, controversies etc, usually known as associative records.
- (h) Demographic, statistical and quantitative records.
- (i) Photographic and pictorial records.
- (j) Audio and audio-visual records.
- (k) Internally-generated training material.
- (l) Committee agendas, circulated papers and minutes.
- (m) Three-dimensional objects, such as models.

All such types of records should be considered as candidates for permanent retention, but such material should be appraised so that the significant can be identified and preserved and the ephemeral marked for eventual (but not necessarily immediate) destruction.

### 3. APPRAISAL

The appraisal of records should be a matter of deciding what the institution needs to keep, not what it can afford to destroy. Whether or not existing files of papers can be weeded should also be decided at an early stage. Weeding is time consuming and staff expensive: a generally acceptable method in the UK is that a file is reviewed paper by paper until one is identified as worthy of permanent preservation. The whole file is then marked for retention without the remainder being reviewed. The removal of significant papers from a file so that the remainder of that file can be destroyed is not considered good archival practice.

In the UK, the Public Record Office (PRO) reckons to retain between 2% and 10% of government records and anyway retains everything dated prior to 1660. In the business field the figures are between 1% and 9%. No-one, however, believes that the correct 10% is saved, but the adoption of the following principles should help to ensure that the most appropriate material is retained.

- (a) Decide what should be kept, not what can be thrown away.
- (b) Make a first appraisal as early as possible in the life of a record (and not more than 5 years after its creation) and regularly thereafter (possibly at five-yearly intervals).
- (c) Be neutral: no organisation is totally successful and records must be of failures as well as successes.
- (d) Be consistent: always use the same criteria to appraise the records.
- (e) Document what is done, so that future decisions can be based on the same criteria and so that future historians know why a particular decision was made.

The report by Haas et al (1985) contains descriptions of the types of records that are to be found in academic and commercial organisations and gives suggestions for what should be retained and what may be discarded.

#### 4. THE VALUE OF THE RECORDS

If these principles are borne in mind during the review processes they should ideally lead to the records selected for permanent preservation having an identifiable value:

- (a) evidential (usually setting a precedent or recording provenance);
- (b) informational (conveying an action, a fact or an opinion);
- (c) instructional (describing policies and procedures);
- (d) educational (illustrating the actual development of concepts and methods); and
- (e) cultural (showing the social context of the activities).

The value of records to a particular institution will vary according to the activities and needs of that institution. It is, however, vital that all institutions recognise that their records are important, both to them (in the short term), and to a wider audience of historians, social researchers and so on (in the medium and long term). Only by recognising this fact will they see the necessity of investing time and money in the organisation and control of their records. But those responsible for such organisation and control must also remember that no archivist can, or should, keep everything. Appraisal and review is essential if a useful and usable collection is to be maintained for future generations. There is as much merit in a positive decision to destroy records as there is in a positive decision to preserve. It is vital to maintain a proper and logical perspective, and to this end a paper by Rapport (1981) is essential reading, if only for its thought-provoking qualities.

#### REFERENCES

- Haas, J. K., Samuels, H. W., Simmons, B. T., 1985. Appraising the records of modern science and technology: a guide. USA: Massachusetts Institute of Technology; distributed by the Society of American Archivists (Chicago).
- Rapport, Leonard, 1981. No grandfather clause: reappraising accessioned records. *American Archivist* 44 (2), 142-150.