

### Introduction

A major difficulty in any newly emerging discipline, such as digital preservation, is the lack of a precise and definitive taxonomy of terms. Different communities use the same terms in different ways which can make effective communication problematic. The following working set of definitions are those used throughout the handbook and are intended to assist in its use as a practical tool. These definitions will not necessarily achieve widespread consensus among the wide ranging communities the handbook is aiming at, they are offered here as a mechanism to avoid potential ambiguities in the body of the handbook rather than as a definitive gloss. Where they have been taken from existing glossaries, this has been acknowledged.

**Access** As defined in the handbook, access is assumed to mean continued, ongoing usability of a digital resource, retaining all qualities of authenticity, accuracy and functionality deemed to be essential for the purposes the digital material was created and/or acquired for.

**Authentication** A mechanism which attempts to establish the authenticity of digital materials at a particular point in time. For example, digital signatures.

**Authenticity** The digital material is what it purports to be. In the case of electronic records, it refers to the trustworthiness of the electronic record as a record. In the case of "born digital" and digitised materials, it refers to the fact that whatever is being cited is the same as it was when it was first created unless the accompanying metadata indicates any changes. Confidence in the authenticity of digital materials over time is particularly crucial owing to the ease with which alterations can be made.

**"Born Digital"** Digital materials which are not intended to have an analogue equivalent, either as the originating source or as a result of conversion to analogue form. This term has been used in the handbook to differentiate them from 1) digital materials which have been created as a result of converting analogue originals; and 2) digital materials, which may have originated from a digital source but have been printed to paper, e.g. some electronic records.

**Digital Archiving** This term is used very differently within sectors. The library and archiving

communities often use it interchangeably with digital preservation. Computing professionals tend to use digital archiving to mean the process of backup and ongoing maintenance as opposed to strategies for long-term digital preservation. It is this latter richer definition, as defined under digital preservation which has been used throughout this handbook.

**Digital Materials** A broad term encompassing digital surrogates created as a result of converting analogue materials to digital form (digitisation), and "born digital" for which there has never been and is never intended to be an analogue equivalent, and digital records.

**Digital Preservation** Refers to the series of managed activities necessary to ensure continued access to digital materials for as long as necessary. Digital preservation is defined very broadly for the purposes of this study and refers to all of the actions required to maintain access to digital materials beyond the limits of media failure or technological change. Those materials may be records created during the day-to-day business of an organisation; "born-digital" materials created for a specific purpose (e.g. teaching resources); or the products of digitisation projects. This handbook specifically excludes the potential use of digital technology to preserve the original artefacts through digitisation. See also Digitisation definition below.

- Long-term preservation - Continued access to digital materials, or at least to the information contained in them, indefinitely.
- Medium-term preservation - Continued access to digital materials beyond changes in technology for a defined period of time but not indefinitely.
- Short-term preservation - Access to digital materials either for a defined period of time while use is predicted but which does not extend beyond the foreseeable future and/or until it becomes inaccessible because of changes in technology.

**Digital Publications** "[Born digital](#)" objects which have been released for public access and either made available or distributed free of charge or for a fee. They may consist of networked publications, available over a communications network or physical format publications which are distributed on formats such as floppy or optical disks. They may also be either static or dynamic.

**Digital Records** See [Electronic Records](#)

**Digital Resources** See [Digital Materials](#)

**Digitisation** The process of creating digital files by scanning or otherwise converting analogue materials. The resulting digital copy, or digital surrogate, would then be classed as digital material and then subject to the same broad challenges involved in preserving access to it, as "born digital" materials.

**Documentation** The information provided by a creator and the repository which provides enough information to establish provenance, history and context and to enable its use by others. See also [Metadata](#) . "At a minimum, documentation should provide information about a data collection's contents, provenance and structure, and the terms and conditions that apply to its use. It needs to be sufficiently detailed to allow the data creator to use the material in the future, when the data creation process has started to fade from memory. It also needs to be comprehensive enough to enable others to explore the resource fully, and detailed enough to allow someone who has not been involved in the data creation process to understand the data collection and the process by which it was created." ( [History Data Service](#) )

**Electronic Records** Records created digitally in the day-to-day business of the organisation and assigned formal status by the organisation. They may include for example, word processing documents, emails, databases, or intranet web pages.

**Emulation** A means of overcoming technological obsolescence of hardware and software by developing techniques for imitating obsolete systems on future generations of computers.

**Life-cycle Management** Records management practices have established life-cycle management for many years, for both paper and electronic records. The major implications for life-cycle management of digital resources, whatever their form or function, is the need actively to manage the resource at each stage of its life-cycle and to recognise the inter-dependencies between each stage and commence preservation activities as early as practicable. This represents a major difference with most traditional preservation, where management is largely passive until detailed conservation work is required, typically, many years after creation and rarely, if ever, involving the creator. There is an active and inter-linked life-cycle to digital resources which has prompted many to promote the term "continuum" to distinguish it from the more traditional and linear flow of the life-cycle for traditional analogue materials. We have used the term life-cycle to apply to this pro-active concept of preservation management for digital materials. The rationale for this approach is summed up in the following quotations: "...the

prospects for and the costs involved in preserving digital resources over the longer term rest heavily upon decisions taken about those resources at different stages of their life cycle. Decisions taken in the design and creation of a digital resource, and those taken when a digital resource is accessioned into a collection, are particularly influential."(

[Beagrie and Greenstein 1998](#)

)"At each phase of the cycle, electronic records need to be actively managed, according to established procedures, to ensure that they retain qualities of integrity, authenticity and reliability."(

[PRO 1999](#)

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**Metadata** Information which describes significant aspects of a resource. Most discussion to date has tended to emphasise metadata for the purposes of resource discovery. The emphasis in this handbook is on what metadata are required successfully to manage and preserve digital materials over time and which will assist in ensuring essential contextual, historical, and technical information are preserved along with the digital object.

**Migration** A means of overcoming technological obsolescence by transferring digital resources from one hardware/software generation to the next. The purpose of migration is to preserve the intellectual content of digital objects and to retain the ability for clients to retrieve, display, and otherwise use them in the face of constantly changing technology. Migration differs from the refreshing of storage media in that it is not always possible to make an exact digital copy or replicate original features and appearance and still maintain the compatibility of the resource with the new generation of technology.

**Reformatting** Copying information content from one storage medium to a different storage medium (media reformatting) or converting from one file format to a different file format (file re-formatting).

**Refreshing** Copying information content from one storage media to the same storage media.