

Preserving the Authoritative Record

Digital Preservation Topical Note 9



What is a record?

A digital record, like its analogue counterpart, constitutes evidence of an event, like a transaction or a decision. Records can take many different forms and still be considered authoritative or 'trustworthy'. However, the form of a record dictates *how* to preserve its authority over time. For most analogue records, such as a document or photograph, preservation focuses on conserving the material media – the paper or photographic image. This approach does not work as well for digital records, which depend on hardware and software for opening and viewing. As technologies age, it becomes more difficult to find and use the machines and software programmes needed to open a digital record in its original form. Therefore, digital records require a different approach to ensure authority.

Why is preserving the authoritative record important?

Authoritative records fulfil many fundamental purposes: they constitute legal proof, meet legislative requirements, and provide an accurate representation for historical purposes. Digital technologies make it easier and faster to generate information, making it more important than ever for users to be able to discern authoritative records from imitations or false information. As technologies change, digital records require new procedures to ensure they continue to support these important functions. The procedures must prove that digital records are both authentic and reliable.



What is authenticity?

To prove that a record is trustworthy, it must demonstrate authenticity. Future users of the record must be able to determine that the record has not been changed or altered. In the analogue world, authenticity can be confirmed through conformance to established procedures – such as witness signatures or controlled record-keeping. Digital content, however, often requires change or alteration to ensure it can be opened and used in the future. Migration, for example, refers to converting an old file format to a new file format so that it can be opened by new versions of software. Digital records can also easily be created and copied and distributed, making it more difficult to demonstrate authenticity.

What is the difference between authenticity and reliability?



To prove that a record is trustworthy, it must also demonstrate reliability. While authenticity ensures a record has not been changed or altered, reliability ensures that the record truthfully represents the event it is meant to document. A record can be authentic – unchanged from the time of creation – but also be unreliable – a false representation of a transaction or event. The opposite is true as well: a record can be reliable – a truthful representation of a transaction or event, but the record itself may have been changed or altered from the original form. For instance, it may be an unauthorised copy or a draft version that has not been through established procedures.

What are the issues with authority in the digital realm?

As mentioned, digital technologies make it easy for records to be created, changed, and duplicated. Because of this capability, it can be difficult to establish which digital file is the ‘original’ or ‘official’ record. While some institutions have implemented measures such as electronic seals and time-stamping, these measures only address authenticity, not reliability. With a greater number of people within institutions creating records, identifying the most faithful representation of the transaction or event can be difficult. The rise in formats and technologies makes it difficult to know what forms to trust and to understand. As a result, too much information is kept and reliability is very difficult to prove.

How do we preserve authentic digital records?

As mentioned, technical solutions exist to help preserve authentic records. Fixity checking (see note on Back-up and Storage) allows institutions to check that digital records have not been changed at the bitstream level (the underlying code that makes up all digital information). Metadata (see note on Metadata) that documents the history of a digital record also provides valuable information to demonstrate the record has not undergone any unauthorised change or alteration. To an extent, fixity checking and metadata can also support reliability if they are implemented systematically and understood by the users of the digital records.

How can I help capture the authoritative record?

Record creators can contribute to the preservation of authoritative records through their daily practices. Following record creation and storage guidelines will help increase users’ understanding of the qualities of consistent and trustworthy digital records. Transferring records to an archive or records management system at appropriate times will also prevent the duplication of information and increase reliability. Authenticity and reliability are not qualities that can be imposed on digital records after they are created. Creators are responsible for generating digital records that can be trusted and verified.



For more information on Digital Preservation visit the DPC Website: <https://www.dpconline.org>