

SG DCMP – U.S. Proposal for Project to Develop Digital Preservation Terminology

Several considerations drive a need for a consistent overarching conceptualization of the digital preservation domain:

- To enable assessment of the completeness and consistency of current preservation environments and activities;
- To discover and understand the necessary additional capability development;
- To support implementations that operate across the scope of multiple current standards whose work has not been harmonized;
- To support interactions between distinct implementations involved in producing, archiving, and consuming preserved digital information where those implementations interact in a variety of processes;
- To establish a harmonized environment for the additional digital preservation standards to be developed, both within specific disciplines and areas of practice and for broader processes related to preservation;
- In recognition that demands for re-use and re-purposing of digital data are increasing;
- To enable interoperability across systems and tools that provide solutions for preservation requirements;
- To provide a framework for the evolution of preservation environments and activities, enabling incremental preservation investments spanning many generations of information technology; and
- To identify potential efficiencies and optimizations for interoperation across the actors, systems, tools, disciplines, and processes of preservation environments and activities.

A comprehensive framework for digital preservation capable of responding to these inherently complex and highly multifaceted challenges needs to be elaborated using a consistent set of terms that systematically represents the concepts of digital preservation, that describes preservation environments and activities, the systems and services used to preserve digital data, and the data producers and consumers. A common digital preservation terminology will enable clear delineation of the relationships among both current and future standards, provide objective support for evaluation of solutions, and facilitate planning and achievement of additional workflow interoperability. The core requirement for long-term viability entails that the terminology be articulated at a level of abstraction capable of bridging differences today and into the future.

Within the ISO standards groups, there are multiple sets of terminology related to preservation, including:

- ISO/IEC TC20/SC 13: 14721:2003, Open Archival Information Systems – Reference Model
- ISO/IEC TC46/SC 11: 15489:2001, Records Management
- ISO/IEC TC46/SC 11: 23081:2006, Records Management Process – Metadata for Records
- ISO/IEC TC46/SC 4: 15836:2009, Dublin Core Metadata Element Set
- ISO/IEC JTC 1/SC 29: 15938:2005, MPEG-7 Schema Definition
- ISO/IEC JTC 1/SC 29: 21000-2:2003, MPEG-21 Digital Item Declaration
- ISO/IEC JTC 1/SC 29: 23000-6:2009, Professional Archival Application Format
- ISO/IEC TC 171/SC 2: 19005-1:2005, Portable Document Format (PDF) 1.4 for long-term preservation of electronic documents
- ISO/IEC TC20/SC 13: 27001, Mission Operations Information Management Systems repository audit and certification
- ISO/IEC JTC 1/SC 32: 11179:2004, Metadata Registries
- ISO/IEC JTC 1/SC 32: 20943:2003, Procedures for achieving metadata registry content consistency on data elements

These standards focus on specific aspects of preservation related to ingestion and management of data, specification of properties that must be preserved, specification of preservation metadata, specification of preservation formats, and specification of preservation assessment criteria. Each of these standards serves a particular purpose; however, differences in the scope and intent of the standards, as well as in the communities that produced them and the areas of application they are meant to serve, yield a picture of preservation that cannot be asserted to be complete or consistent. Thus the current body of standards provides a starting point, and a clear statement of need, for a project to develop a common and comprehensive digital preservation terminology. In conclusion, the U.S. proposes that a project be undertaken to develop an international terminology standard that provides a harmonized vocabulary for digital preservation.