

DIGITAL - Institute for Information and Communication Technologies



MPEG Multimedia Preservation Activities

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Outline

- Motivation
- Proposals for standard multimedia preservation metadata
- Status and Gaps
- Outlook

Motivation

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Recommendations to professional organizations:

- d. work with industry for the development of requirements of systems that embed preservation concerns;*

Recommendations to industry

- a. ensure long-term accessibility to digital information;*
- b. adhere to descriptive standards and recognized metadata standards to enable the creation of trusted digital repositories.*

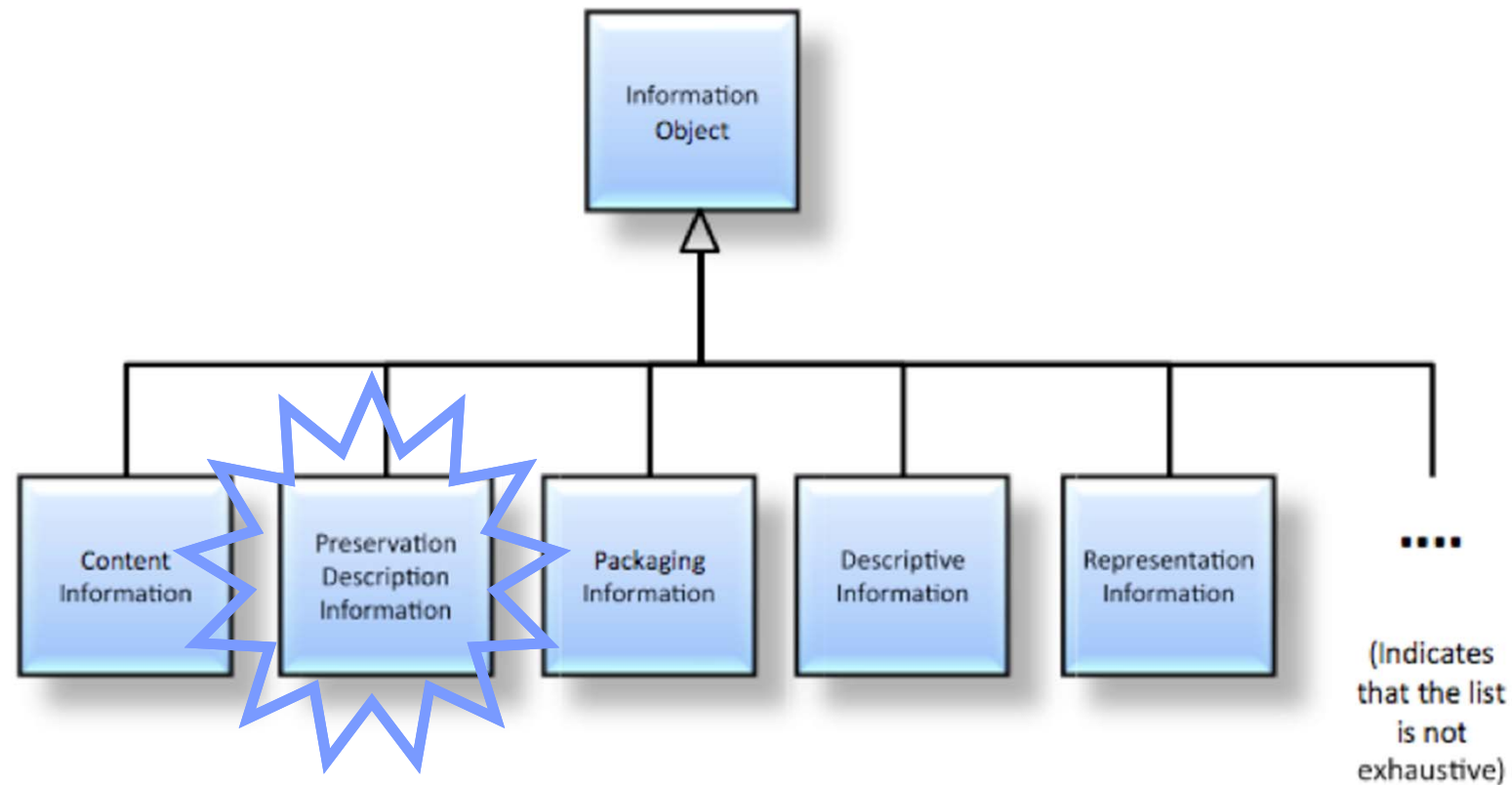
from: UNESCO/UBC Vancouver Declaration, Sept. 2012

Motivation

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- Digital Preservation Interoperability Framework (DPIF) Symposium
 - April 2010, co-located with MPEG meeting in Dresden, DE
 - organised by NIST
 - establish a long-term digital preservation standardization roadmap
- Lack of a standard for preservation metadata for multimedia content

Preservation Description Information





Multimedia Preservation AhG

- Co-chairs
 - Wo Chang, NIST (US)
 - Walter Allasia, Eurix (IT)
- involves members from Europe, US, Japan and New Zealand
- aims to define a standard representation and guidelines for multimedia preservation metadata



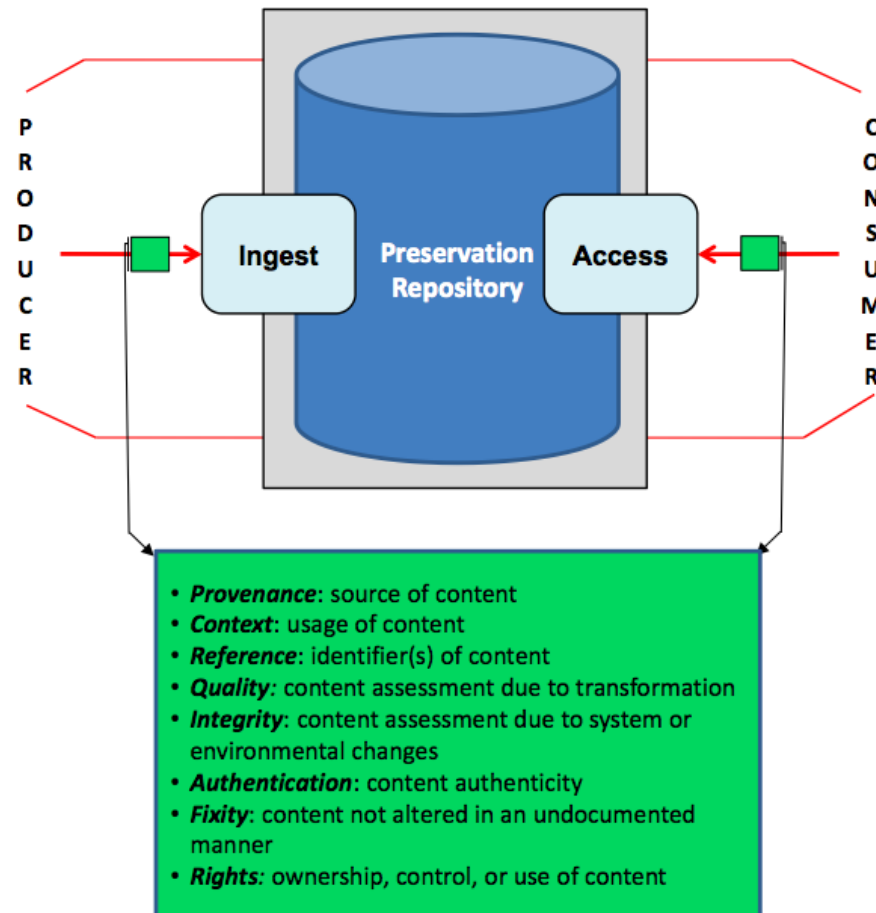
Multimedia Preservation AhG

- National Institute of Standards and Technology, USA
- Eurix, Italy
- RAI, Italy
- Nippon Telegraph and Telephone Corporation, Japan
- National Diet Library, Japan
- JOANNEUM RESEARCH, Austria
- European Broadcasting Union (EBU), Switzerland
- Deutsche Kinemathek - Museum für Film und Fernsehen, Germany
- Universität Passau, Germany
- National Library of New Zealand
- Universitat Politècnica de Catalunya, Spain
- Austrian Institute of Technology, Austria
- IT Innovation, UK
- University of Innsbruck, Austria
- Nederlands Instituut voor Beeld en Geluid, Netherlands
- NHK, Japan
- ETB-Basque Television, Spain
- Sveriges Television, Sweden
- National Library of Sweden
- British Broadcasting Company, UK

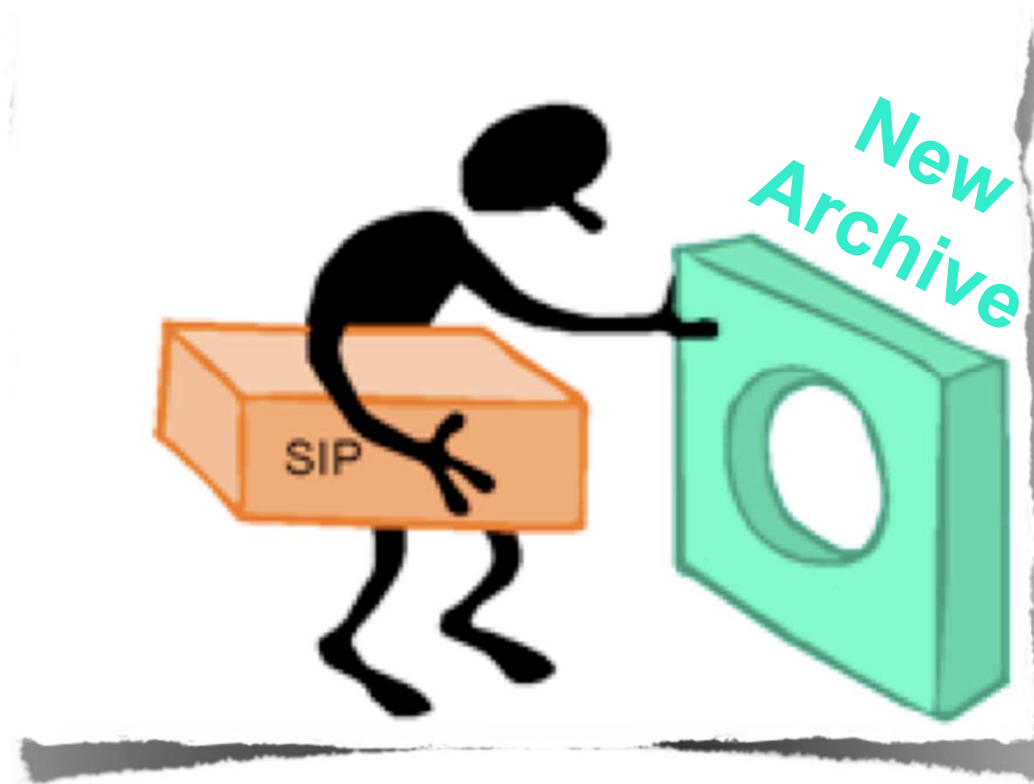
MPDI Requirements

- Provenance
- Context
- Reference
- Quality
- Integrity
- Authentication
- Fixity
- Rights

Relation to OAIS Reference Model

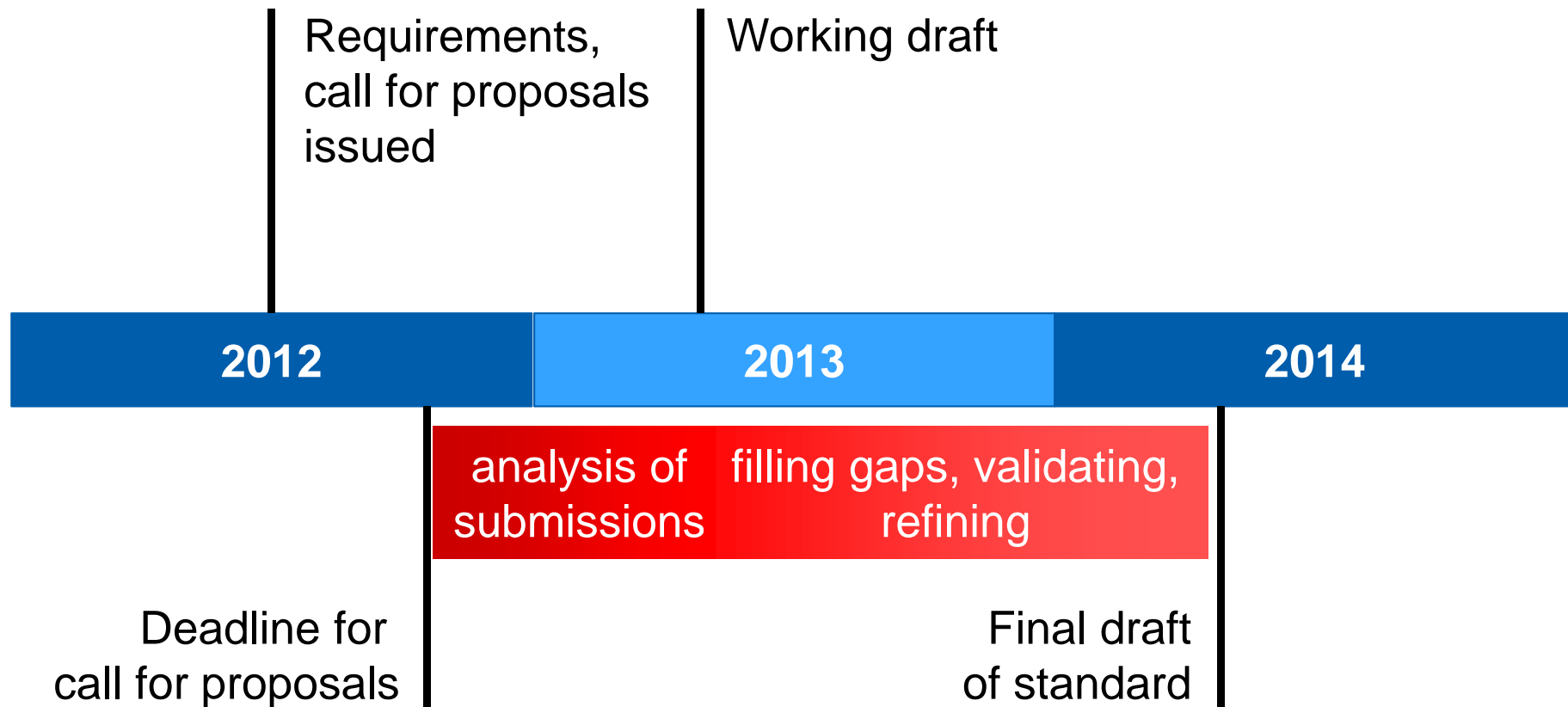


Situations we want to avoid



Timeline

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Responses to Call for Proposals Received (1)

- Details on workflow and requirements from
 - Japan National Diet Library (NDL)
 - National Library of New Zealand (NZNL)
 - mapped to their own metadata schemes and workflows
- MPEG Professional Archive Application Format (PA-AF, MPEG-A part 6)
 - addresses provenance, reference, context, quality fixity, rights
 - MPEG-21 DIDL based container structure
 - virtual file structure of package
 - associated metadata (MPEG-7, IPMP, REL)

Responses to Call for Proposals Received (2)

- MPEG-7 Audiovisual Description Profile (AVDP)
 - MPEG-7 part 9, amd. 1
 - addresses context, reference, provenance
 - MPEG-7 profile for a/v media production and archiving
 - defined by EBU MIM/SCAIE group
 - representation results of automated information extraction tools
 - MPEG-7 Extensions for visual quality description
 - addresses quality
 - MPEG-7 visual description scheme for quality measures and defects
 - generic scheme + reference to controlled vocabulary and specific descriptors)
-

Responses to Call for Proposals Received (3)

- MPEG-21 CEL/MCO (designated MPEG-21 part 20, 21)
 - addresses rights
 - expressing business contracts related to media content
 - machine processable expressions
 - links to textual clauses
 - Contract Expression Language (XML representation, part 20)
 - Media Contract Ontology (OWL representation, part 21)

MPDI vs MP-AF

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- Moved on from requirements phase at 102nd MPEG meeting in Oct. 2012
- Assigned to MPEG-A (Application Formats)
- **Multimedia Preservation Application Format (MP-AF)**

Gaps

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- MPAF resides within preserved media content
- Information about processes that impact preservation of Digital Items
- Integrity
- Authenticity
- Fragment-based fixity

MP-AF ongoing work

- Collect further input
 - More details on requirements
 - Specific use cases from different domains
 - Best practice examples
- Analyse submissions and gaps
 - Process information and their parameters (cf. PREMIS preservation events)
 - Content integrity
 - Fine grained fixity metadata

YOUR contribution

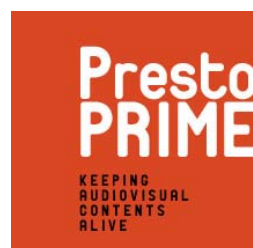
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- Inputs on use of preservation metadata and workflows in different types of multimedia archives
- Example preservation metadata documents
- Proposal of technologies for filling the gaps
- MPEG Preservation Reflector
 - <https://mailhost.tnt.uni-hannover.de/mailman/listinfo/preservation>

Conclusion

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- MP-AF aims to define interoperable preservation metadata for multimedia content
- compatible with MPEG technologies
- many things are there, now working on the gaps
- **Contributors welcome!**



TOSCA-MP



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