

# The Role of Best Practices and Standards

Robin L. Dale  
*Digital Directions*  
Portland, OR  
21-23 July 2014



## aka, *confessions* of a Former Standards Queen

Goals for the next 45 minutes:

- Understand Standards
- Understand Best Practices
- Understand How to Distinguish the Two
- Understand When and How to Leverage Both in Your Work

DIGITAL DIRECTIONS PORTLAND, OR 21-23 JULY 2014

## + There is a standard for *every* occasion!

METS, NISO Z39.87-2006 (R2011), FAGDI, Dublin Core, TDR, PREMIS, BagIt, OAIS, MODS, ISO 16363:2012, ResourceSync, DOI, ARK, PDF/A, ISO 19115:2003, ALTO, PAIS, SGML, XML, CCO, TEI, W3C, EAD, PID, RDF, DoD, CCSDS, PANDORA, ISO 15489:2001, aDORE, PRONOM, NARA, UDFR, ICSTI, RLG-OCLC, DNG, MPEG-21, JHOVE, OAI, OAI-PMH, OAI-ORE, ODRL, NIST, MPEG-7, ODF, OpenRAW, ISO14721:2003, ARMA, and more ...

DIGITAL DIRECTIONS PORTLAND, OR 21-23 JULY 2014

## + *Understanding Standards*

- Three types of standards
- Standards: Pros & Cons
- Standards v. guidelines
- Some general categories of standards
- Assessing usefulness & applicability
  - Will they provide “all of the answers?”
  - Should they be advisory?
  - Or do they have a more “biblical” quality?
  - And how can you tell the difference?

DIGITAL DIRECTIONS PORTLAND, OR 21-23 JULY 2014

## + Three Types of Standards

- **De facto standards:** standards that are commonly accepted by the community or marketplace; they are established by common practice or dominant market share.
- **Publicly available specifications:** flexible, fast-track “standards” that require less consensus-building than an ISO, European or national standards and offer the sponsor more control over how the content is developed (i.e., specifications produced by the Internet Engineering Task Force, PAS77- IT service continuity management)
- **De jure standards:** standards that are formally established by law, or by a recognized standards-setting body [e.g., the International Standards Organization (ISO)].

DIGITAL DIRECTIONS PORTLAND, OR 21-23 JULY 2014

## + Standards: Pros and Cons

- **Pros**
  - Provides some “rules” to follow
  - Promulgates good practice
  - Promotes interoperability
- **Cons**
  - Rigid conformance is difficult in practice
  - Generally granular in nature
    - Promotes proliferation of standards

DIGITAL DIRECTIONS PORTLAND, OR 21-23 JULY 2014

## + Standards v. Best Practices

- Standards
  - ***In principle:*** “something set up and established by authority as a rule for the measure of quantity, weight, extent, value, or quality.”
  - ***In practice:*** *de facto* & *de jure* standards, specifications
- Best Practices and Guidelines
  - ***In principle:*** “A statement or other indication of policy or procedure by which to determine a course of action.”
  - ***In practice:*** recommendations of policies and/or procedures from “expert groups” within a community; often arise out of grant-funded activities; often based on pieces of multiple standards; meant to enable local implementation.

DIGITAL DIRECTIONS PORTLAND, OR 21-23 JULY 2014

## + Some General Categories ...

- Digitization
- Resource identification
- Resource description
- Resource encoding
- Digital curation/preservation/data archiving/  
records management
- Interoperability

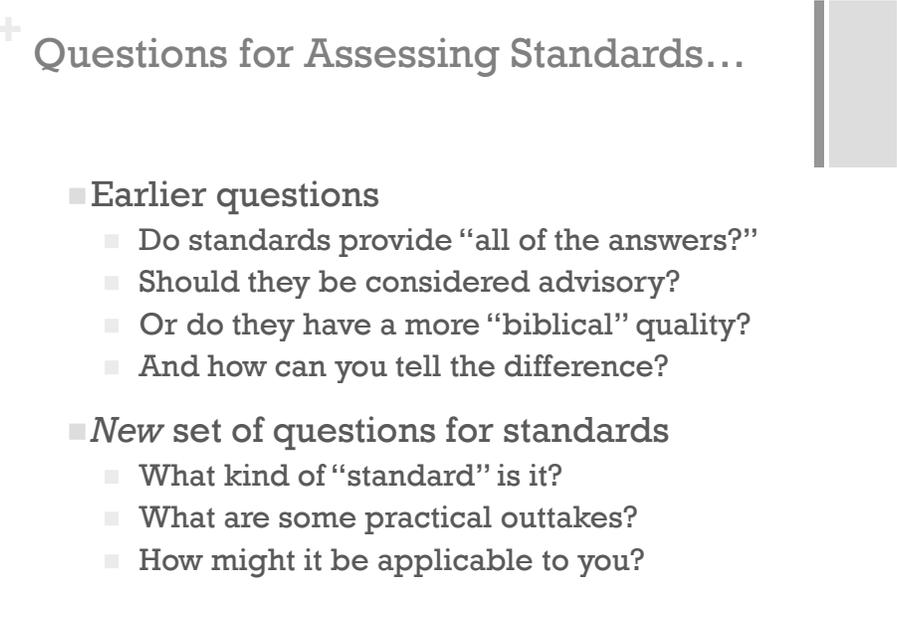
DIGITAL DIRECTIONS PORTLAND, OR 21-23 JULY 2014



**Assessing  
Usefulness and  
Applicability**

Some practical examples

**(Audience participation  
encouraged!)**



**+ Questions for Assessing Standards...**

- **Earlier questions**
  - Do standards provide “all of the answers?”
  - Should they be considered advisory?
  - Or do they have a more “biblical” quality?
  - And how can you tell the difference?
- **New set of questions for standards**
  - What kind of “standard” is it?
  - What are some practical outtakes?
  - How might it be applicable to you?

DIGITAL DIRECTIONS PORTLAND, OR 21-23 JULY 2014

## + Digitization - Images

*Moving Theory into Practice*  
*Digital Imaging Tutorial*



**FA DGI** Federal Agencies  
Digitization Guidelines Initiative

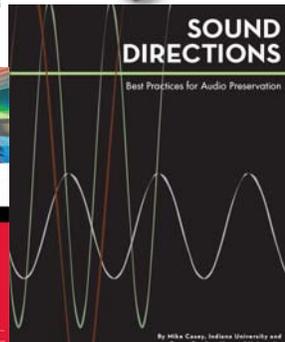
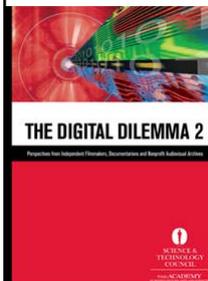


DIGITAL DIRECTIONS PORTLAND, OR 21-23 JULY 2014

- What are they?
- Takeaways
  - Community/program/institutionally developed guidelines
  - Incorporates experience/expertise, grant funded activity, pieces of relevant technical standards
- Applicability
  - Textual, Graphic Illustrations/Artwork/Originals, Maps, Plans, Oversized, Photographs, Aerial Photographs, and Objects/Artifacts

## + Digitization - Audio & Video

**FA DGI** Federal Agencies  
Digitization Guidelines Initiative



- What are they?
- Takeaways
  - Some development by technical experts; very granular focus (de jure)
  - Some interpretation, context, & workflow development (best practices)
- Applicability
  - Digitization of audio & video
  - Communication tools & workflow for projects
  - Specifications for vendors

## + Metadata - Descriptive

**Dublin Core Metadata Initiative®**  
*Making it easier to find information.*



Biodiversity  
Information  
Standards  
TDWG



Metadata Object Description Schema  
Official Web Site

MPLP (Greene-Meissner)

<ead> Encoded Archival Description, Version 2002



Federal Agencies  
Digitization Guidelines Initiative

*Categories for the Description of Works of Art* J. Paul Getty Trust • College Art Association

DIGITAL DIRECTIONS PORTLAND, OR 21-23 JULY 2014

- What are they?
- Takeaways
  - Community developed guidelines for specific material types
- Applicability
  - Promotes discovery, interoperability & cross searching / harvesting

## + Metadata – Encoding/Structural



Metadata Encoding & Transmission Standard  
Official Web Site



<Text Encoding Initiative >



<ead> Encoded Archival Description, Version 2002

DIGITAL DIRECTIONS PORTLAND, OR 21-23 JULY 2014

- What are they?
- Takeaways
  - Promotes discovery & delivery
  - Enables exchange of objects & metadata
- Applicability
  - Archival finding aids (EAD)
  - Text: poetry, manuscripts, transcriptions (TEI)
  - Contributing to collaborative repository / service (METS)

## + Metadata - Administrative & Technical



FA DGI Federal Agencies  
Digitization Guidelines Initiative

**MIX** NISO Metadata for Images in XML Schema  
Technical Metadata for Digital Still Images Standard  
Official Web Site

**textMD** Technical Metadata for Text

**ALTO** ... Technical Metadata for Optical Character Recognition ...

DIGITAL DIRECTIONS PORTLAND, OR 21-23 JULY 2014

- What are they?
- Takeaways
  - Technical characteristics of digital objects
  - Generally format specific
  - Much can be generated automatically from digital file
- Applicability
  - commonly serves as an extension schema used within METS (MIX, textMD)
  - Few mandatory fields

## + Metadata - Preservation



DIGITAL DIRECTIONS PORTLAND, OR 21-23 JULY 2014

- What is it?
- Takeaways?
  - Data dictionary for *preservation* metadata
  - Community standard encompassing significant portion of administrative metadata
  - Promotes easy repository exchange of digital objects & metadata
- Applicability?
  - Addresses interoperability issues
  - Provides encoding guidance
  - For all institutions (libraries, museums, & archives)

## + Interoperability

**Open Archives Initiative  
Protocol for Metadata Harvesting**



**ResourceSync** 

**TIPR** Towards Interoperable  
Preservation Repositories

**METS** Metadata Encoding & Transmission Standard  
Official Web Site

**PREMIS** PRESERVATION METADATA  
MAINTENANCE ACTIVITY

- What are they?
- Takeaways
  - Interoperability through metadata, exchange packages
  - Framework for describing and interchanging metadata (RDF)
- Applicability
  - Easy exchange of data
    - Packages (PREMIS, METS, TIPR, RXP, OAI-ORE, BagIt, ResourceSync)
    - Descriptions (OAI-PMH)
  - Image Delivery

DIGITAL DIRECTIONS PORTLAND, OR 21-23 JULY 2014

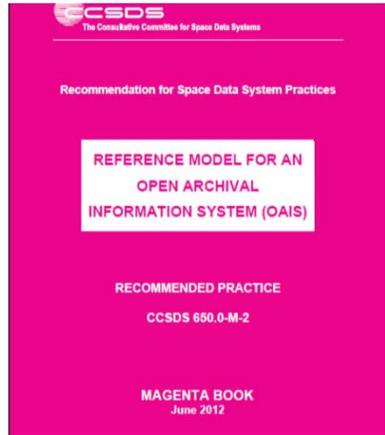
## + Trusted Digital Repositories (TDR)



- What is it?
- Takeaways?
  - Defined “trusted digital repository”
  - Established attributes of a trustworthy repository or digital archiving system
  - Established responsibilities of TDR
- Applicability?
  - Understanding of what it means to be a TDR, conceptually (organizationally, resource commitments, technical needs and responsibilities)
  - Assists in clarifying institutional sights on scope, responsibilities, digital preservation needs, future plans, collaborative necessity, etc.

DIGITAL DIRECTIONS PORTLAND, OR 21-23 JULY 2014

## + Open Archival Information System (OAIS)



What is it?

Takeaways

- ISO 14721 2003 (R2012)
- Presented an open way to define “digital archive” with ties to the end user community
- Defined functional components
- Created a common vocabulary
  - Ingest, SIP, AIP, DIP, Preservation Planning...

Applicability?

- Reference model applicable for all typed of digital archives/repositories
- Facilitates discussions with other organizations via common vocabulary

DIGITAL DIRECTIONS PORTLAND, OR 21-23 JULY 2014

## Trustworthy Repositories: Audit & Certification (TRAC)



■ What is it?

■ Takeaways?

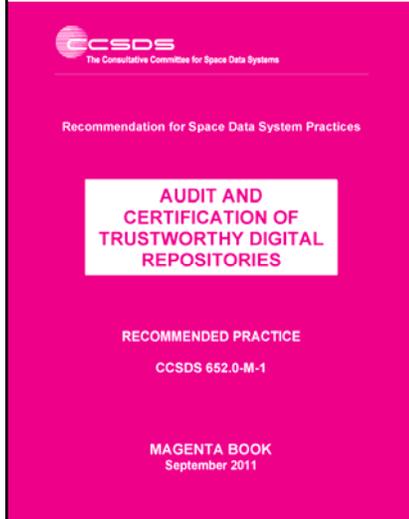
- Criteria checklist for evaluating trustworthiness of repositories & archives
- Derived from TDR, OAIS and other *de facto* and *de jure* standards

■ Applicability?

- Digital repository planning
- Digital repository audit/evaluation
- Evaluating third party service provider capabilities

DIGITAL DIRECTIONS PORTLAND, OR 21-23 JULY 2014

## + Audit & Certification of Trustworthy Digital Repositories



- What is it?
- Takeaway
  - Defines a recommended practice for assessing the trustworthiness of digital repositories
- Applicability
  - Applicable to the entire range of digital repositories.
  - Can be used as a basis for certification.
  - Used in conjunction with ISO/DIS 16919 – Requirements for bodies providing audit and certification of candidate trustworthy digital repositories

## + Recap

- Understand what is meant by “standard”
- Not all standards are equal or applicable to your local situation
- Base decisions on *applicable* standards, guidelines, and best practices
  - Local projects
  - Collaborative projects / programs (federal, statewide, regional, etc)
- When in doubt, opt for standards if they promote long-term use, interoperability and functionality

+ Thank you!

■ Questions?

DIGITAL DIRECTIONS PORTLAND, OR 21-23 JULY 2014