

Who Sez... ?

Digital ID Forum

Chris Barlas
Rightscom

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Axioms for IP

1. Intellectual property is **complex**
2. Identification is **essential**
2. Metadata is **critical**
3. Metadata is **modular**
4. Metadata is **interdependent**
5. Transactions need **automation**

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<in>ecs> Sydney Conference March 2000



Two Definitions of DRM

A. The Management of Digital Rights

How digital objects, with rights attached, may be managed with identification and metadata processes

B. The Digital Management of Rights

How the rights attached to digital objects may be enforced by digital processes, such as encryption, watermarking and other types of access control.

- This is about A.

• "Digital Rights Management" ?

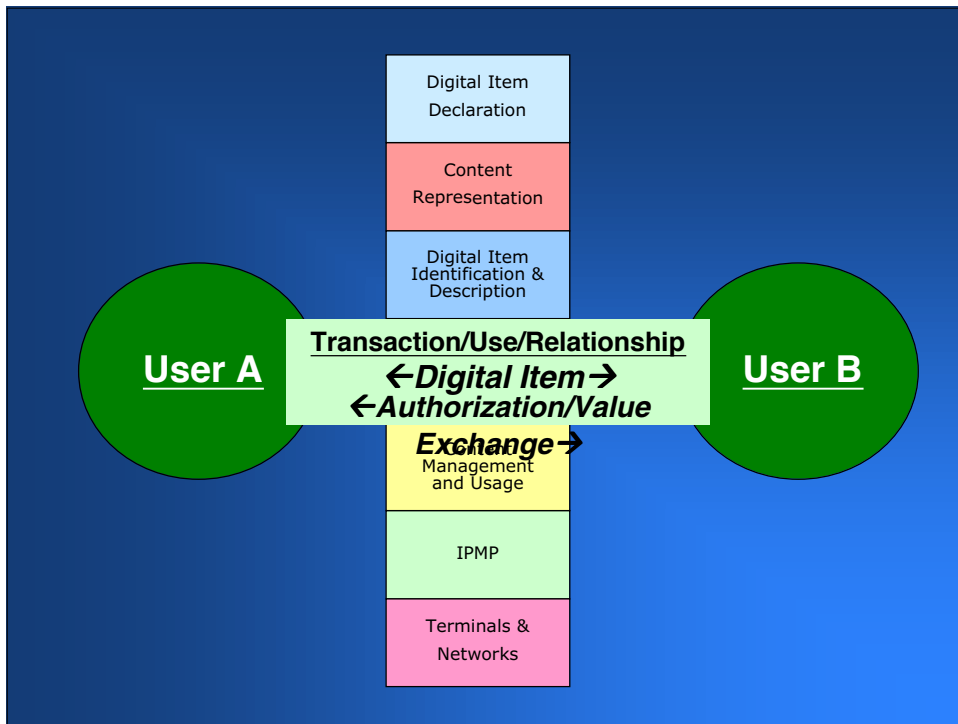
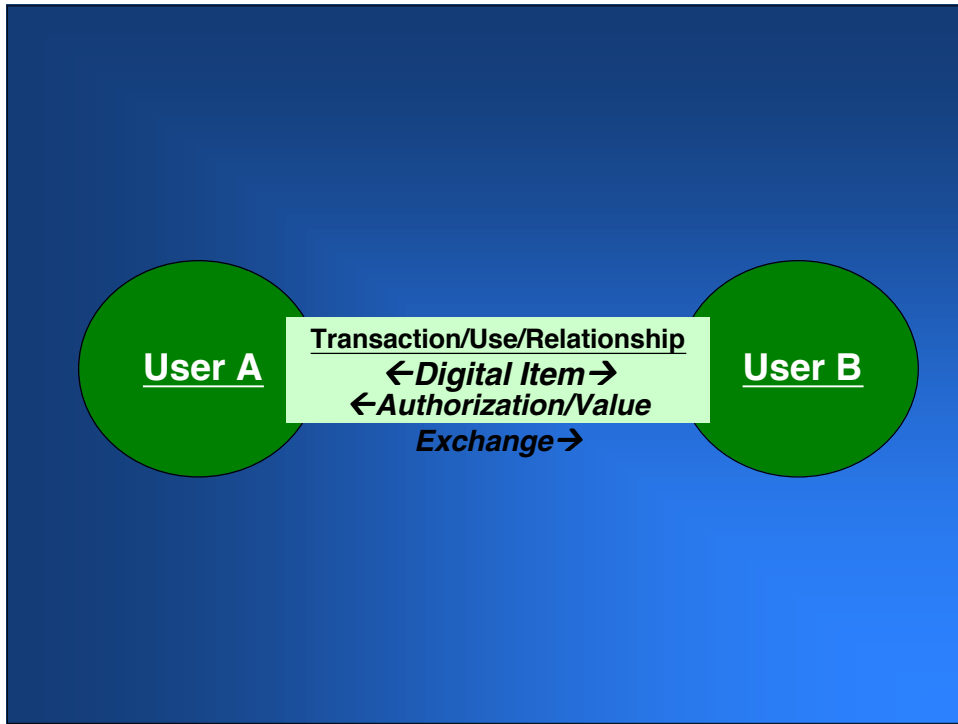
- DRM = management of digital rights = only concerned with rights of digital entities ○
- DRM = digital management of rights = digital management of physical, digital, abstract entities
- Digital objects may be licensed for reproduction in physical media e.g. DVD, print Π
- Rights management covers "all rights"

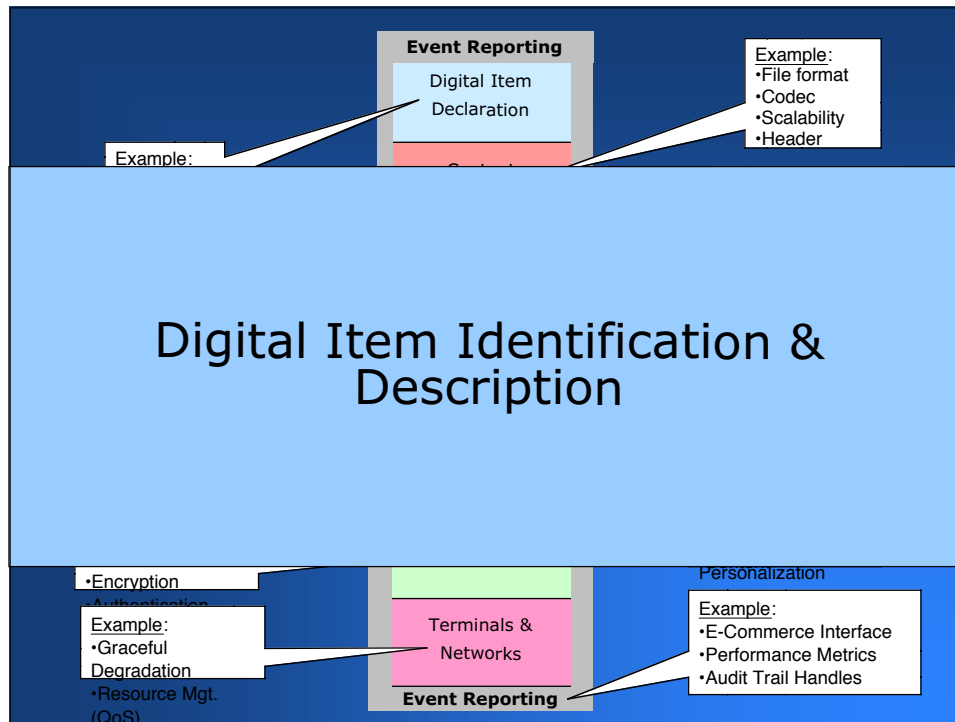
MPEG-21 User

- Any entity that interacts in the MPEG-21 environment or makes use of a Digital Item
- Users include individuals, computers, devices, organisations, corporations, communities, consortia, governments, other standards bodies, etc
- Roles including creators, consumers, rights holders, content providers, distributors, etc

MPEG-21 Digital Item

- A Digital Item is a structured digital object with a standard representation, identification and metadata within the MPEG-21 framework. This entity is also the fundamental unit of distribution and transaction within this framework.

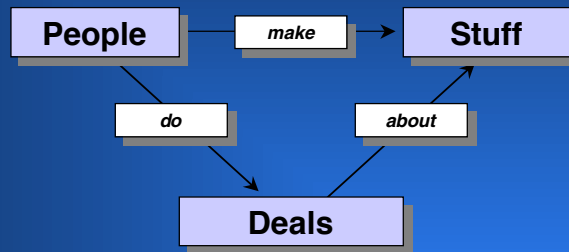




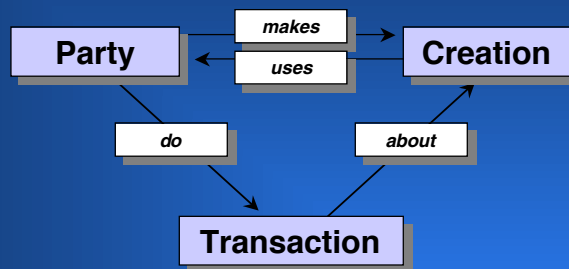
Principles (guidelines to follow)

1. Functional granularity (when is a thing a thing?)
2. Unique identification (what is it?)
3. Designated authority (who sez?)
4. Appropriate access (what do I need you to know about it?)
5. Application independence

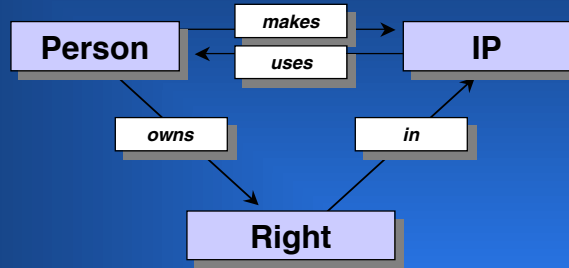
View 1: Basic



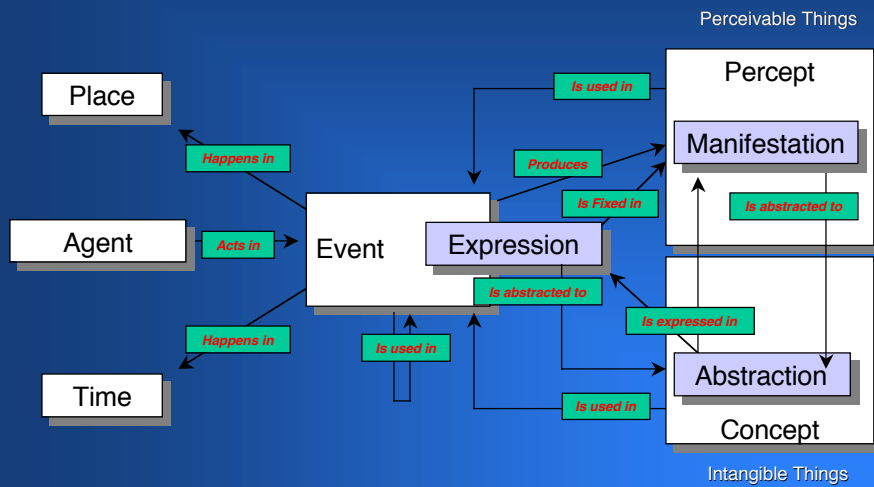
View 2: commerce



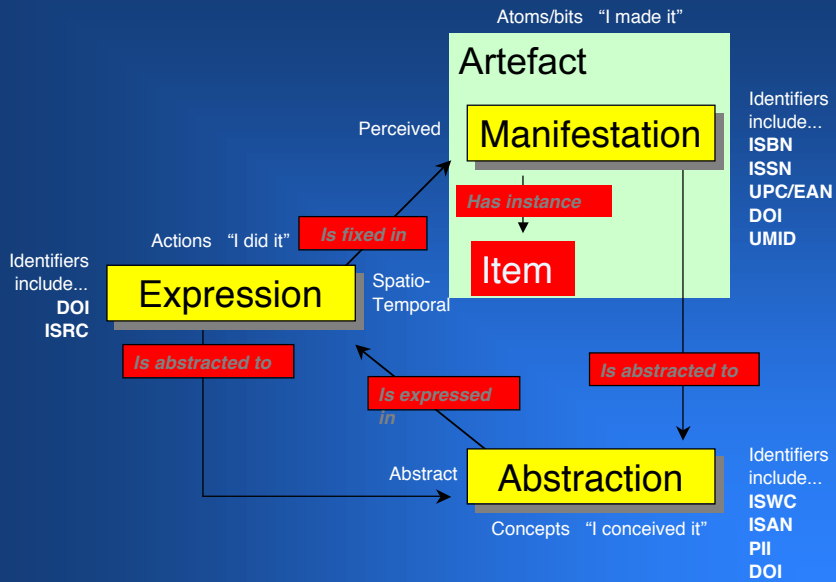
View 3: legal



2 views combined: a model of making



Primary types of identifier



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Rights management through Digital Objects

∪ Trading intellectual property (*rights management*) requires representations

- Just like trading physical property

- Structured representations: digital objects

∩ Structured representations for Rights transactions need consistent interoperable pieces of "metadata"

∩ Using representations in rights transactions needs a consistent dictionary of defined terms and their relationships

- Now being built (<index>2rdd)

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Representations are what is traded

- Physical property:
 - *representations* e.g. **deeds, mortgages**, are traded (not the physical bricks etc.)
- Intellectual property:
 - *representations* e.g. **licences, files**, are traded (not the abstract Work etc.)

[See: Kahn: "Representing Value as Digital Objects"

D-Lib magazine, May 01 (www.dlib.org/dlib/may01)]

Representations must be structured

- Representation = not just an inventory but a *structured entity*, such as a deed
 - "to facilitate the comparison and combination of assets (standard descriptions)"
 - "crafted so as to facilitate the easy measurement of an asset's attributes"

Rights management: trading intellectual property

- "Digital Rights Management" simply means that these representations are digital
 - DRM = *digital management of rights* = digital management of physical, digital, abstract entities
- but structured
 - "to facilitate the comparison and combination of assets (standard descriptions)"
 - "crafted so as to facilitate the easy measurement of an asset's attributes"
- i.e. "information objects" or "digital objects"
 - Having *identity, structure, metadata*:
 - *Some structured accessible data of the asset's attributes*

Trading intellectual property

∪ Trading intellectual property (*rights management*) requires representations

- *We need to have representations, providing structured data about the assets: digital objects*
- *What does this structured data need to be?*

⌘ Describing rights using data

Primary rights events (claims, deals) are described using pieces of data:

Rights Statement ("claim")

[party] owns [right] in [creation] in [time] and [place]

Rights Agreement ("deal")

[party] agreed with [party] in [time] and [place] that [event]

Pieces of "rights metadata" used in each semantic structure

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Creations typically have standard identifiers, which may have associated structured data, or which may act as keys to get this data

Other pieces of data also need standard identifiers (time, party..)

indecs (www.indecs.org)

- Interoperability of Data in E-Commerce Systems
- Multiple partner work 1998-2000 (EC, standards bodies, commerce, and non-commercial) - a broad cross-section of international bodies representing all aspects of the content industries' value chain from creators to users.
- Produced principles for structured metadata and basis for a data dictionary for interoperability
- Used by DOI, ONIX, Muze, etc
- Applicable to other structured approaches e.g. SMPTE (and creates means of interoperability with them)
- Now being extended to rights transactions

<indecs>2rdd structure

- Initial proposal by International DOI Foundation (IDF) and EDI+EUR.
- Feasibility study funded by IDF, spring-summer 2001. Project managed by RightsCom.
- A consortium from technology, rights owners and rights managers.
- Status: Consortium finalized. See press release. Project under way with delivery in December.

<indecs>2rdd consortium partners

- Accenture www.accenture.com (Consultancy)
- ContentGuard www.contentguard.com (XrML)
- Dentsu (Melodies and Memories) www.dentsu.com (Japan)
- EDI+EUR www.editeur.org (Text +)
- Enpia Systems www.enpia.co.kr (Korea)
- International DOI Foundation www.doi.org (Infrastructure)
- Motion Picture Association www.mpa.org (movies)
- Recording Industry Association of America & International Federation of Phonographic Industries www.riaa.com + www.ifpi.org (music)

chris.barlas@rightscom.com

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