On Keeping Your Head
NISO Digital Resources Forum

Paul Jessop, Chief Technology Officer
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Overture
If you can keep your head when all about you
Are losing theirs and blaming it on you;

Rudyard Kipling
1865-1936
If you can fill the unforgiving minute
With sixty seconds’ worth of distance run,
Yours is the Earth and everything that’s in it,
And—which is more—you’ll be a Man, my son!
if....
if ....
Keeping your head
Keeping your head

Paul Jessop

Chief Technology Officer, IFPI
1996-2006

Chief Technology Officer, RIAA
2006 to date

Director, International ISRC Agency
1996 to date

Director, GRid Registration Authority
2006 to date
Scope
Scope

• Rigor/Rigour in modelling stuff
• Identifying Resources
• Identifying Releases of Resources
Rigor in modelling stuff
Modelling Stuff

• Usually done distressingly badly
• IFPI participated in <indec> project 1998-2000
• “Interoperability of Data in E-Commerce Systems”
• Rightscom continues the work
A model of commerce

People make stuff.
People use stuff.
People do deals about stuff.
Indecs Creation Types

Metadata Schema Diagram 11

Creation Types

Expression

is fixed in

Spatio-temporal

is abstracted to

Abstraction

is expressed in

Abstract

Manifestation

Has Instance

Item

Artefact

Identifiers include:
- ISBN
- UPC/EAN
- UMID
- DOI

Atoms, bits

"I made it"

Identifiers include:
- ISRC
- DOI

Concepts

"I conceived it"

Actions

"I did it"
Issues in modelling stuff

Abstraction ↔ Expression

“→” perform a tune that has been learned

“←” improvise

• What about performing from sheet music?
  Manifestation → Abstraction → Expression
Lack of common language

ISRC identifies an expression

• Japanese industry insists: ISRC identifies a master tape

• Cannot be true
  – Otherwise a safety copy would have a different identifier
Modern recordings are synthetic

• Model is not harmed
• For purposes of modelling creation types
  – A recorded performance
  and
  – A multi-track mix-down

have the same characteristics
ISAN claims to identify abstractions

• It doesn’t according to the indecs model
• Probably expressions
• Does interoperability suffer?
  – Probably yes
indecs Creation Types

Metadata Schema Diagram 11

creation types

manifestation

artefact

atoms, bits  "I made it"

identifiers include...
isbn
upc/ean
umid
doi

perceived

is fixed in

item

has instance

is abstracted to

is expressed in

abstraction

Concepts  "I conceived it"

abstract

expression

is abstracted to

actions  "I did it"

identifiers include
isrc
doi

spatio-temporal
Identifying Resources
Identifying Resources

- Principally sound recordings

- Though other media types are in need of help
  - Photos
  - Graphic Arts objects
  - Software
International Standard Recording Code (ISRC)

- ISO 3901
- Currently under review
- Identifies expressions
  - Sound recordings
  - Music video recordings
- Highly decentralised
- IFPI is Registration Authority
  - “International ISRC Agency”
- National ISRC Agencies
  - RIAA, PPL, SCPP etc
Extremely widely used

• Apple iTunes Store required ISRC on all tracks from the outset
• Even small labels have been applying for codes to get their stuff onto iTunes
Hard to do Quality Control

• No mandatory registration
• But should be hard to hurt anyone except yourself
• No complaints from outside the sector
Exhaustion Imminent?

• Some agencies have allocated registrant codes inefficiently
• There are a finite number of registrant codes
• Solution: Encourage use of “agents”
  – Aggregators
  – Repertoire managers
  – Distributors
• Shared registrant code
Registration Databases

• Other industries have one
• Business case:
  – Piracy
  – Litigation
  – Distribution of performance royalties
  – Discovery
  – Efficient reporting of use
• No plans
• Watch this space
Lessons

• Dumb numbers need advocates
  – Someone will always try to decode them
• Big boys help adoption
  – Apple’s insistence
• Think local, act global
  – A card index solution for a web services world
• Design-in extensibility
  – A COBOL solution for an XML world
Identifying Releases
What is a release?

• Long of a resource
• Short of a product
• A “bundle” of intellectual property
Yesterday

ISRC identifies tracks
EAN/UCC identifies products

Sold
Now - Packages

Music + Notes, Lyrics + Screensavers

Video + Photos

Copyright 2008 RIAA
A Release

• … contains the bundle of IP (resources)
• independent of the way they are coded
  – SD/HD
  – MP3/WMA
• independent of the business model
  – Download
  – Stream
  – Subscription
Global Release Identifier (GRid)

• Identifies a release
• Has mandatory registration of metadata
  – Can be in a local repository
• Requires registration of ISRC metadata
  – Even though this is not required by ISRC standard
Global Release Identifier (GRid)

A1 - 2425G - ABCD1234002 - M

A. Identifier Scheme
B. Issuer Code
C. Release Number
D. Check Character
GRid implementation

• Happening
• But slowly

• No mandate from Apple here
• Most releases have just one IP sensitive resource

• ISRC of prime resource acts as proxy
Lessons

• Don’t underestimate the
  1. Power
  2. Value
  3. Entrenchment

of the kludge

• Don’t hold you breath waiting

• Don’t assume the vision for the business if correct

• Keep even narrowly implemented standards updated
Coda
Genesis 2:19

And out of the ground the Lord God formed every beast of the field, and every fowl of the air; and brought them unto Adam to see what he would call them: and whatsoever Adam called every living creature, that was the name thereof.
The World’s Oldest Profession?
<?xml version="1.0"?>
<eden>
  <beast>
    <breed>
      serpent
    </breed>
    <quantity>
      1
    </quantity>
  </beast>
</eden>
Yours is the Earth and everything that’s in it,
And—which is more—you’ll keep your job, my son!