

# From Functional Granularity To People Interoperability

Applied Collection Description in the SCONE  
Project

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# (1) Collection Level Metadata and Functional Granularity

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# Overview (Part 1)

- Collection Level Metadata
- Functional Granularity
- Cross-searching



# SCONE

- Scottish Collections Network
- Operational, but embryonic, service arising from the SCONE project (RSLP)
- Collections located in Scotland, and about Scottish topics
- 3500 collection level descriptions
- Range from official publications of Albania to the National Library



Description	Collection of official publications of Albania, as defined by the Scottish Working Group on Official Publications (SWOP).
Notes	Statistics.
Type	Collection.Library.Text.User
...	
Location	Strathclyde University. The Andersonian Library Curran Building 101 St James Road Glasgow (City of Glasgow, Scotland) G4 0NS
Access	Contact before a visit is not required.
Item creators	Albania
Subjects	Albania
Part of	Strathclyde University. Library SWOP collection
Catalogues	Strathclyde University WebPAC



Description A small collection of 25 books from the library of John Buchan (1875-1940) ...

Size 25 v. + mss.

...

Administrative history	Date	Transferred from	To	Terms
	1940	John Buchan ...	National Library ...	Bequest
	1977	Tweedsmuir ...	National Library ...	Donation
	1985	Tweedsmuir ...	National Library ...	Donation

Location National Library of Scotland  
George IV Bridge

...

City centre location, Waverley rail station, bus ...

...

Collectors John Buchan (Baron ... [Collecting: closed])  
Item creators John Buchan (Baron Tweedsmuir) (1875-1940)  
Part of National Library of Scotland collection (main)  
Catalogues National Library of Scotland WebPAC



# SCONE metadata

- Structure based on Heaney's e-r model
  - ◆ 'Analytical model of collections and their catalogues'
  - ◆ RSLP guidelines
- 3+ entities
  - ◆ Collections
  - ◆ Agents (personal and corporate)
  - ◆ Locations (physical and virtual)
  - ◆ + Subjects now developed with HILT project
- Collections metadata not new, but not given focus until recently
  - ◆ A, L, S familiar from item level metadata



# Entity relationships

- Location access and opening hours
  - ◆ Agent-Administers-Location
- Accrual status and policy
  - ◆ Agent-Collects-Collection
- History of custodianship
  - ◆ Agent-Sells[Collection]To-Agent
  - ◆ Agent-Delegates[Collection]To-Agent



# Collections and sub-collections

- What is a collection?
  - ◆ Heaney's concept of 'functional granularity'
  - ◆ "level of detail required [for] resources discovery or collection management"
- Defined by users, owners and managers
  - ◆ Discovery
  - ◆ Marketing
  - ◆ Collaboration



# SCONE findings

- Multi-level granularity
  - ◆ SWOP collections have 6 levels
- Most named special collections have a general (organisational) parent
  - ◆ Mono-hierarchy with only one parent at each level
  - ◆ Such a 'backbone' may form the basis of organisation-based collection services
    - Regional or sectoral



# Polyhierarchy

- But distributed and ‘assembled’ collections require additional virtual parents
  - ◆ Edward Clark Collection has Napier University Merchiston Learning Centre collection as physical parent
  - ◆ And Bookhad project ‘collection’ as virtual parent
  - ◆ And ‘Rare book collections in Scotland’ collection as virtual (potential) parent, etc.



# Cross-searching

- Collection-Collection relationships
  - ◆ Parent/child
  - ◆ Catalogue/Finding aid
  - ◆ Other (splits)
- Standard collection name or other identifier?
- Pre-coordinate forms for other entities
  - ◆ Name authority files (via extended warrant)
  - ◆ Gazetteers
  - ◆ Subjects!



# Pre-coordination

- Local, service-specific pre-coordination needs to take account of the general
  - ◆ All service-scope boundaries will be leaky
    - Research collections held by public libraries
    - Lifelong learning resources held by FE/HE
    - Collections located in a region, and collections about a region (but located elsewhere) (SCONE)



# Data management

- Functional granularity implies duplication of A, L, S entity metadata
- Volatility differs from item-level
  - ◆ Persistent locations; dynamic administrators
- Range of agents wider
  - ◆ Collectors, administrators as well as creators
- And collection entities likely to multiply
- Suggests need for coordination
  - ◆ Scope and definitions
  - ◆ Authoritative headings



## (2) Collection Strength and People interoperability

Dennis Nicholson



# Overview (part 2)

- Scotland and Collection strength: Conspectus, Collaborative Collecting, User Navigation
- Known problems and SCONE solutions:
  - ◆ Long term/new systems: automated CS indices
  - ◆ Meanwhile: SCAMP-mediated constrained professional judgement for legacy metadata
  - ◆ Linked by ‘people interoperability’
- Importance of human level processes:
  - ◆ Lessons from CAIRNS and SCONE
  - ◆ A CoSMiC example...



# Collection Strength in Scotland

- A Scottish Conspectus, used for:
- Collaborative Collecting:
  - ◆ SCURL, Conspectus, CCD policies
- User Navigation
  - ◆ Research Collections Online
  - ◆ CAIRNS distributed catalogue and dynamic landscaping
- SCONE to examine known problems and propose solutions (amongst other things)



# Known Problems

- A selective list:
  - ◆ Lack of objectivity and consistency, so navigational information could be better
  - ◆ Labour intensive
  - ◆ Subject scheme incompatibilities between:
    - Service schemes/Conspectus; Services
  - ◆ Snapshots - data not current
  - ◆ No information on coverage overlap
  - ◆ Misleading: small collections with unique items
  - ◆ Data insufficient for deep resource sharing
  - ◆ Granularity level less than user's query
  - ◆ How do user terminologies map to schemes?



# SCONE Solutions (2)

- Long term/new systems: automated CS indices
- Systems to include this item level metadata:
  - ◆ DDC number to a reasonable granularity level
  - ◆ An agreed subject term for the number (HILT)
  - ◆ MEG educational level
  - ◆ Unique object identifier
  - ◆ Data on format (e.g. electronic only)
  - ◆ Charging policies
  - ◆ Service exclusion policy
  - ◆ Language(s) of content
- Each will build CS index containing these elements for cross-searching



# SCONE Solutions (2)

- Solves a number of the known problems:
  - ◆ Relatively objective
  - ◆ Relatively consistent
  - ◆ Able to indicate overlap (unique identifier)
  - ◆ Shows small collections with unique items
  - ◆ Up to the minute currency
  - ◆ Single subject scheme at CS and item level across all services
  - ◆ Support for deeper resource sharing
  - ◆ CS description to low granularity levels used by users
  - ◆ Marginal cost if built into system
- Leaves user terminologies mapping to HILT



# SCONE Solutions (1)

- Automated CS indices will work for new systems and in the long term legacy metadata systems
- Meanwhile: SCAMP-mediated constrained professional judgement for legacy metadata systems (Objectivity via CCD, user needs, agreed methodologies, peer review)
- Not as good as automated but an improvement on current situation:
  - ◆ Should be more objective
  - ◆ Should be more consistent
  - ◆ Less labour intensive (but still poorer results than automated approach with more effort)



# SCONE Solutions (1)

- ◆ Can show small collections with unique items if special provision agreed
  - ◆ Unable to indicate overlap
  - ◆ Better currency but still a snapshot
  - ◆ Subjects inter-compatibility problem remains
  - ◆ Data insufficient for deep resource sharing
  - ◆ CS description granularity levels still poor
  - ◆ Doesn't solve user terminologies to schemes problem (HILT could solve but at higher cost than automated approach)
- Added advantage – a human level process place leading to in time to fully automated approach
  - People interoperability...



# Why Human Processes Matter

- Lessons from CAIRNS and SCONE:
  - ◆ Users increasingly use/need distributed resources, finding tools so co-operation now essential as well as desirable:
    - Distributed networked collections need collaborative management
    - Coherent distributed virtual 'libraries' won't just happen – we must co-operate to manage retrieval/user environments
    - People interoperability a pre-requisite of technical and metadata interoperability
    - Design people into the system
    - Small is beautiful where people are the key



# A CoSMiC example...

- Building people into the (SCONE) system:
  - ◆ CoSMiC, SCAMP, a Co-operative Infrastructure
- A quality service needs good inter-compatible metadata maintained by collection managers
- Harvesting whatever turns up won't do the job
- To deal with 'people factor', need processes to :
  - ◆ Actively monitor problems and promote progress
  - ◆ Agree common terminological and other metadata standards, apply them in a standard way, input them in the same form; ensure adherence through central input with local output; currency control...
  - ◆ Make any necessary standards changes jointly
  - ◆ Train to think globally before acting locally



# Thank you!

- <http://scone.strath.ac.uk/>
- <http://scone.strath.ac.uk/service/index.cfm>
- <http://scone.strath.ac.uk/scamp/index.html>
- <http://cosmic.cdjr.strath.ac.uk/>  
<http://hilt.cdjr.strath.ac.uk/>
- [d.m.nicholson@strath.ac.uk](mailto:d.m.nicholson@strath.ac.uk)
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