

Records in Contexts  
(RiC)  
An Archival Description Draft Standard



INTERNATIONAL COUNCIL ON ARCHIVES  
EXPERTS GROUP ON ARCHIVAL DESCRIPTION

Mexico

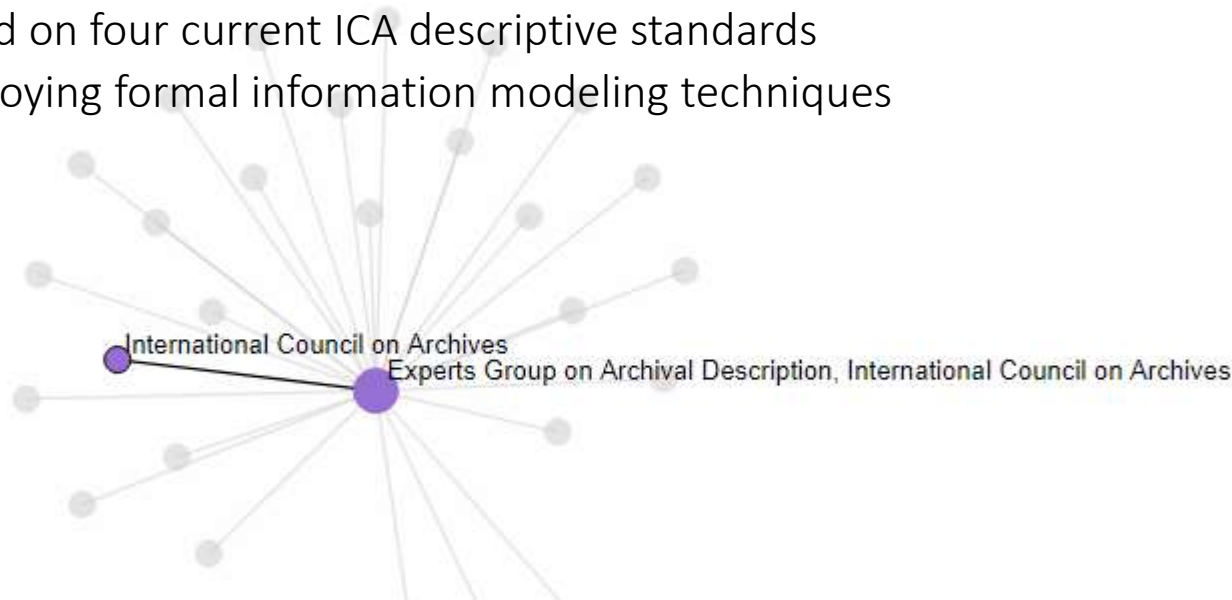
2017

## Session Contents

- Introduction (Daniel Pitti)
- Archival Entities, Attributes, and Relations Among Them (Gavan McCarthy)
- Exercise (Bogdan-Florin Popovici)

## Experts Group on Archival Description (EGAD)

- Formed by the ICA Programme Commission in late 2012
- Partial successor to the Committee on Best Practices and Standards (CBPS)
- Term 2012-2016; 2016-
- Charged with developing a Conceptual Model for Archival Description
  - Based on four current ICA descriptive standards
  - Employing formal information modeling techniques



## ICA Standards for Archival Description 1988-2008

<u>Standard</u>	<u>Edition</u>	<u>Development Dates</u>	<u>Publication Date</u>
Principles		(1988) 1989-1992	1992
ISAD	1 <sup>st</sup>	1990-1993	1994
ISAAR	1 <sup>st</sup>	1993-1995	1996
ISAD	2 <sup>nd</sup>	1996-2000	1999
ISAAR	2 <sup>nd</sup>	2000-2004	2004
ISDF	1 <sup>st</sup>	2005-2007	2007
ISDIAH	1 <sup>st</sup>	2005-2008	2008

# Archival Principles: Records in Contexts

- Principle of Provenance
  - Respect des fonds
    - The Records **accumulated** by a person or group in the course of life and work are to be kept together and not intermixed with records from other sources
  - Respect for Original Order
    - The intellectual grouping of and sequencing imposed on the records in the context of accumulation and use is essential to understanding the interrelations among them as well as being evidence of how they were used
- General international consensus on the principle
- But historical, cultural differences in understandings
- Records in Contexts
  - Embodies both facets of the principle
  - Though more expansive understanding of Provenance
  - Based on intellectual and practical critique of archival description
  - Records and the people that create, manage, and use them do not exist in isolation but in complex layers of interrelated, interdependent contexts
  - In Time

# Context is Complex

- *Homo inscribo* – man, an animal that inscribes, writes on, records ...
- Records and the contexts within which records are created and used is *irreducibly* complex!!
- What is recorded is only a tiny fraction of all of the transactions that take place in the course of life and work, within each person, and among persons
- But ... the archivist has the responsibility to preserve the record
  - Preserving the artifact and ...
  - Preserving the contexts of accumulation and use of the record
- Ultimately the preservation of contexts will be imperfect; contexts are irreducibly complex
- Though we have an obligation to make preservation sufficient, to enable users, today and tomorrow, to understand and use the records

## Context is Complex

- RiC aspires to improve our capacity to represent the complexity of the origin and history of records
- Conceptual model: representing within the world the objects that are essential for records managers and archivists to fulfill their responsibilities
  - Model each object of interest (entity)
  - Model the essential characteristics of each entity (attribute)
  - Model the relations among the entities (relation)
- RiC Conceptual Model represents the world from the perspective of the records manager and archivist
- The model is complex, as it is intended to model complex phenomena as fully as possible
- Though descriptive tools based on RiC will ameliorate the complexity for users

# Historical Context

- Since at least mid-19th century, cultural heritage communities
  - Reimagine description in relation to emerging and new communication technologies
  - Trend
    - Separate the components of description
    - To efficiently and more effectively create prevailing access tool (e.g., book catalog, finding aids)
    - At the same time, enable new tools, new perspectives, new paths, based on recombining the components
- Four ICA standards reflect this trend
- Though the separation and new perspectives not realized



## Current and Emerging Technology Landscape

- Network, of course, and Markup (XML), and Database (SQL) ...
- XML and SQL have dominated but ...
- Emergence of Graph technologies: RDF, Semantic technologies and Linked Open Data
  - More expressive, but also more challenging: complexity, quality ...
- Opportunities: separation, recombining, interrelating, opening domain borders, new perspectives, new paths ...
- Reposition community to take advantage of the opportunities

# The RiC Products

- Conceptual Model for archival description (RiC-CM)
  - Documents the key entities of archival description and the attributes of each and the relations among them
  - With diagrams and examples illustrating how the components are interrelated to form complete archival description
- An Ontology for archival description (RiC-O)
  - Based on RiC-CM
  - Expressed using the W3C OWL language
  - Will map archival concepts to similar concepts employed by allied communities: integrated access to cultural heritage
  - Will enable archival community to participate on its own terms, so-to-speak
- Application Guidelines (RiC-AG)
  - AG will provide implementation guidelines
  - How it will do so is yet to be determined

## From ISAD(G)

- Predominant form of archival description today
  - Hierarchical (top-down) description of a single fonds
  - Description of the whole, the parts of the whole, parts of the parts
  - Largely if not exclusively self-contained, inward “looking”
  - That is, not connected to the broader context
  - All contained in a single apparatus
  - ISAD(G) a model for this approach; EAD a method for communicating it

## To RiC: Pivotal Change

- Records and aggregations of records treated as two distinct entities
  - Records
  - Record Sets
  - Over the course of its existence, a record may be a member of more than one record set, and at the same time
- Multilevel description (hierarchy, a kind of graph)
  - Multilevel or hierarchical description one among other possible methods of description  
Multilevel description predominates, and will do so for the foreseeable future: well understood and economic

## To RiC: Pivotal Change

- Multidimensional description (a network graph)
  - Encompasses multilevel description
  - Within a network of interrelated records, fonds, people, activities ...: context within context
  - Enables more flexible description that is more expressive of the complex realities of records than possible in a single hierarchical description
- Archival description envisioned as a vast social-document network

## Current Status of Work

- EGAD released first draft of RiC-CM in September 2016
  - Open for comments until January 31, 2017
  - Public comments from sixty-two individuals and groups representing 19 countries
  - When compiled, over 200 pages of comments!!
- EGAD met in October 2017 in Rome
  - The majority of the work focused on the comments
  - The quantity of the comments, as well as the fact that the suggestions were often contradictory, presented and presents a challenge

# Work Timeline

- RiC-CM: Second draft for public comments early in 2018
- RiC-O: Incomplete beta draft early in 2018
- RiC-AG: First draft for public comments in early 2019
- Timeline thereafter variable depending on comments, work schedules ...
- Objective will be for all three products to be complete and relatively stable late in 2020

## Further Work Needed: Intellectual versus Physical

- *Homo inscribo* – man, an animal that inscribes, writes on, records ..
- Records are social constructs
- A person records information on a physical medium – either analog or digital
- The intellectual content and the physical medium are inextricably bound together
- But ... we make copies of records using many different techniques:
  - Scribes
  - Photocopying
  - Digitize, imaging, but also transcription
- And we accept the re-representation of the record as having the same intellectual content as the record from which it is derived
- More or less, and more and less



## Further Work Needed: Intellectual versus Physical

- A EGAD working group is focused on the intellectual versus the physical
- This is not an archival problem: it is a global problem, shared with cultural heritage communities, records management community, and others
- But the archival concerns for authenticity, integrity must be represented
- There are both intellectual as well as, in some contexts, legal considerations
- RiC need not replicate what other experts are doing, but RiC must ensure that the archival perspective is honored
- And that and RiC will interrelate with complementary standards, such as preservation standards

**Thank you!**

# Over to Gavan





# Records in Contexts (RiC)

An Archival Description Draft Standard



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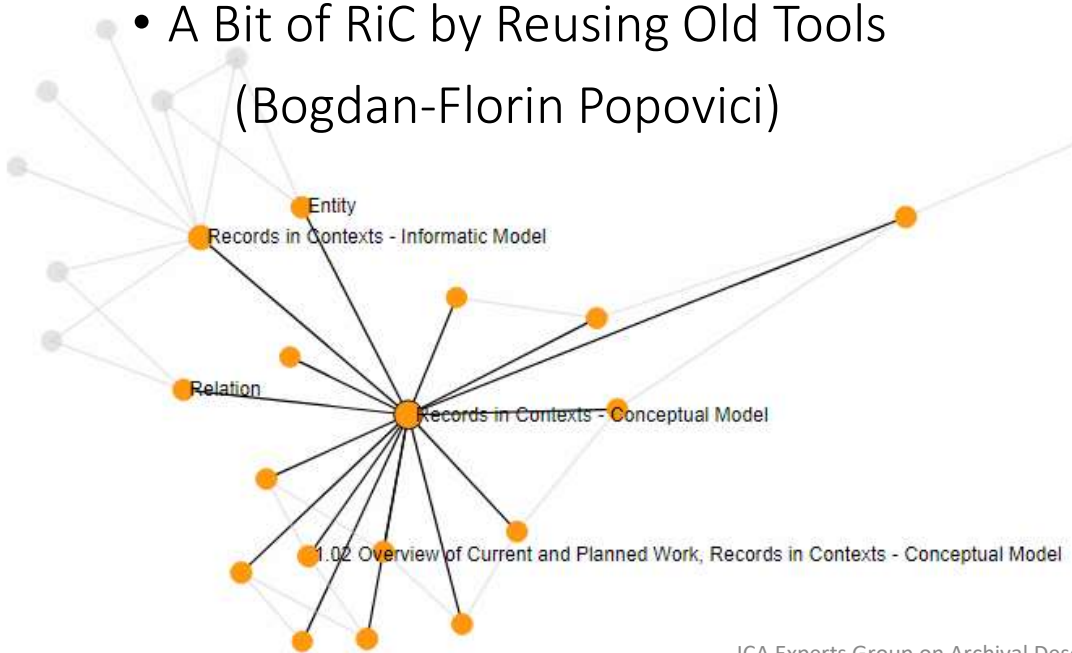
Mexico

2017

ICA Experts Group on Archival Description  
Records in Contexts

## Session Contents

- Introduction  
(Daniel Pitti)
- Archival **Entities**, **Attributes**, and **Relations** Among Them ←
- A Bit of RiC by Reusing Old Tools  
(Bogdan-Florin Popovici)



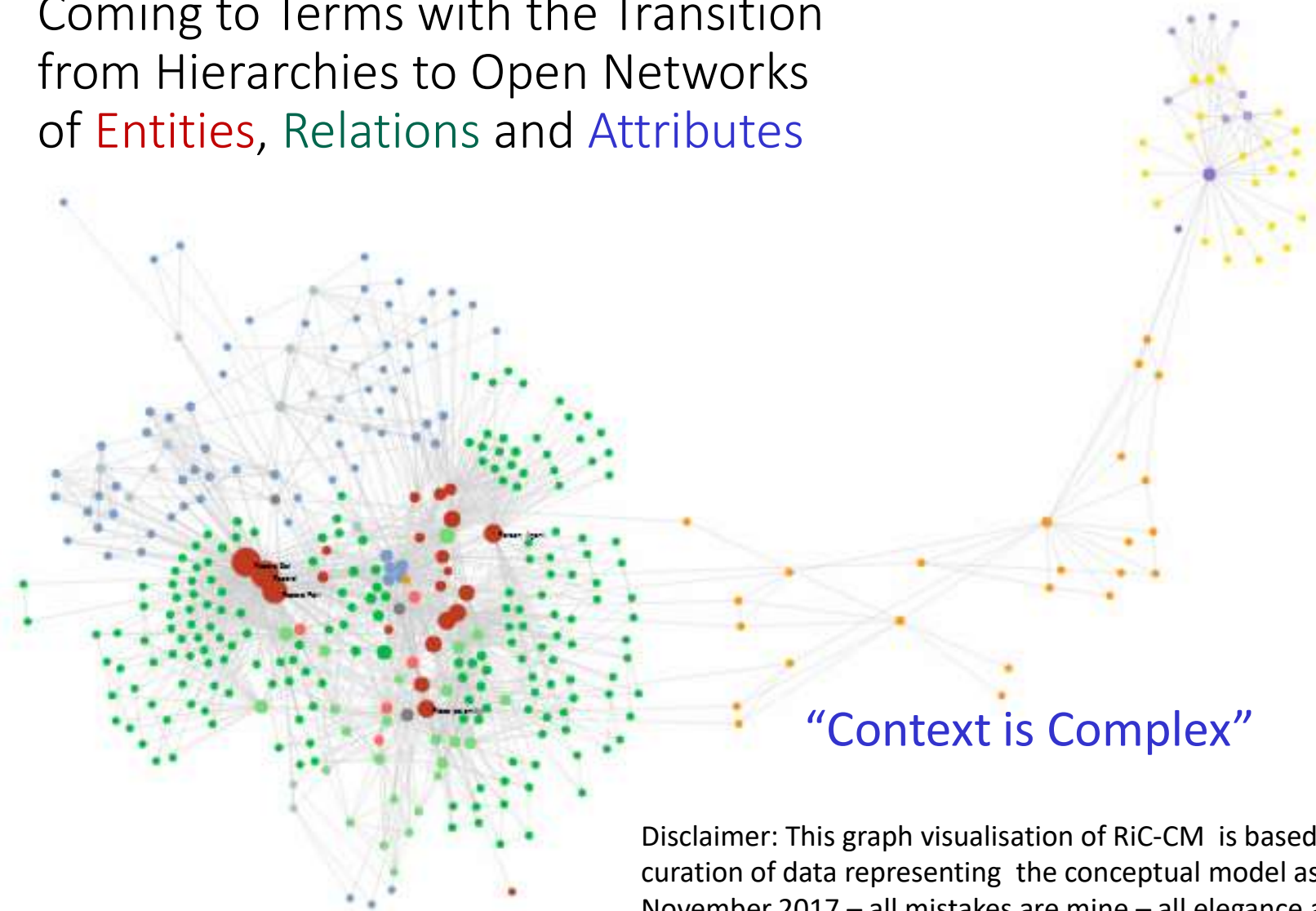
*Using network data curation and visualisation tools to analyse RiC-CM and its broader context.*

Thanks Daniel



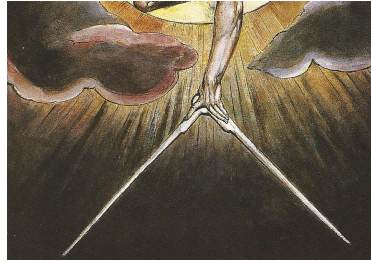
But let's jump in the deep end.

# Coming to Terms with the Transition from Hierarchies to Open Networks of **Entities**, **Relations** and **Attributes**



“Context is Complex”

Disclaimer: This graph visualisation of RiC-CM is based on my curation of data representing the conceptual model as at 26 November 2017 – all mistakes are mine – all elegance and meaning is EGADs.



Entities



Space



Time



Attributes

Relations





# RiC-IM

## Records in Contexts - Informatic Model (RiC v0.1 draft)

HOME

BROWSE

## Records in Contexts - Informatic Model




Discussion release for consultation. Explore the RiC-IM using the indexes on the Browse page. Each entry is hyperlinked to its related Entities, Properties or Relations as defined in the Records in Contexts - Conceptual Model. RiC-IM contains higher level groupings to aid analysis. These do not form part of the formal RiC-CM. If you would like to provide constructive feedback please contact Gavan McCarthy at [gavanjm@gmail.com](mailto:gavanjm@gmail.com). If you would like to explore a graph visualisation of the model you can do so at <https://connex.esrc.unimelb.edu.au> and following the link at ICAD.

Licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. What do we mean by this?

Published by the eScholarship Research Centre, 2016  
<http://web.esrc.unimelb.edu.au/ICAD/index.html>

*RiC-IM* uses the Online Heritage Resource Manager, a tool developed by the eScholarship Research Centre, part of the University Library at the University of Melbourne.

ICA Records in Contexts - Informatic Model v0.2 consists of 394 entries with references to 4 published resources.

	Activities	<u>A</u> <u>E</u> <u>P</u>	8 entities
	Attributes	<u>A</u> <u>C</u> <u>D</u> <u>E</u> <u>F</u> <u>G</u> <u>H</u> <u>I</u> <u>L</u> <u>M</u> <u>N</u> <u>O</u> <u>P</u> <u>Q</u> <u>R</u> <u>S</u> <u>T</u>	71 entities
	Attribute Sets	<u>D</u> <u>H</u> <u>I</u> <u>L</u> <u>S</u>	15 entities
	Domains	<u>A</u> <u>E</u> <u>R</u>	3 entities
	Entity Sets	<u>A</u> <u>E</u> <u>F</u> <u>R</u> <u>S</u>	5 entities
	Entity Types	<u>A</u> <u>C</u> <u>D</u> <u>F</u> <u>G</u> <u>I</u> <u>M</u> <u>O</u> <u>P</u> <u>R</u> <u>T</u>	22 entities
	Explainers	<u>A</u> <u>C</u> <u>D</u> <u>E</u> <u>O</u> <u>R</u>	28 entities
	Organisations	<u>E</u> <u>I</u>	2 entities
	People	<u>B</u> <u>C</u> <u>E</u> <u>F</u> <u>H</u> <u>I</u> <u>M</u> <u>P</u> <u>R</u> <u>S</u> <u>T</u> <u>V</u> <u>Z</u>	23 entities
	Relation Groups	<u>A</u> <u>E</u> <u>F</u> <u>S</u>	25 entities
	Relation Types	<u>A</u> <u>C</u> <u>D</u> <u>E</u> <u>F</u> <u>G</u> <u>H</u> <u>I</u> <u>M</u> <u>O</u> <u>P</u> <u>R</u> <u>S</u> <u>U</u> <u>W</u>	192 entities
	Functions	<u>I</u> <u>P</u> <u>Q</u> <u>S</u>	26 descriptors
	Published Resources	<u>I</u>	4 citations

# Record

## Alternative Names

RiC-E01

## Summary

A Record is linguistic, symbolic or graphic information represented in any form, on any durable carrier, by any method, by an Agent in the course of life or work events and Activities.

## Skip to

- ▀ [Related Entries](#)

## Details

Such information may serve a variety of purposes, including documenting the events and Activities. Because of its relation to the events and Activities, it serves as evidence for them no matter its quality for use in a particular context.

One or more Records in one context may be subsumed or incorporated into a Record in another context to form a new Record. This 'compound Record' should not be confused with a Record Set, as it is evidence of a single transaction by an Agent rather than a grouping of distinct Records as part of their management and use.

## Examples:

Deed appointing John Bambridge, Sheriff of Leicestershire, with 3rd Great Seal of Charles I;

Appended; sketch Map of the Qatar Peninsula;

Email message concerning an agreement to participate in the ICA Seoul Congress containing two attachments and digitally signed

## Related entries

### Properties

- ▀ [Authenticity and Integrity](#) RiC-P05
- ▀ [Classification](#) RiC-P17
- ▀ [Conditions of Access](#) RiC-P18
- ▀ [Conditions of Use](#) RiC-P19
- ▀ [Content Extent](#) RiC-P07
- ▀ [Content Type](#) RiC-P06
- ▀ [Encoding Format](#) RiC-P10
- ▀ [General Note](#) RiC-P04
- ▀ [Global Persistent Identifier](#) RiC-P01
- ▀ [History \(of Record\)](#) RiC-P20
- ▀ [Language Information \(res\)](#) RiC-P11
- ▀ [Local Identifier](#) RiC-P02
- ▀ [Media Type](#) RiC-P12
- ▀ [Medium](#) RiC-P14

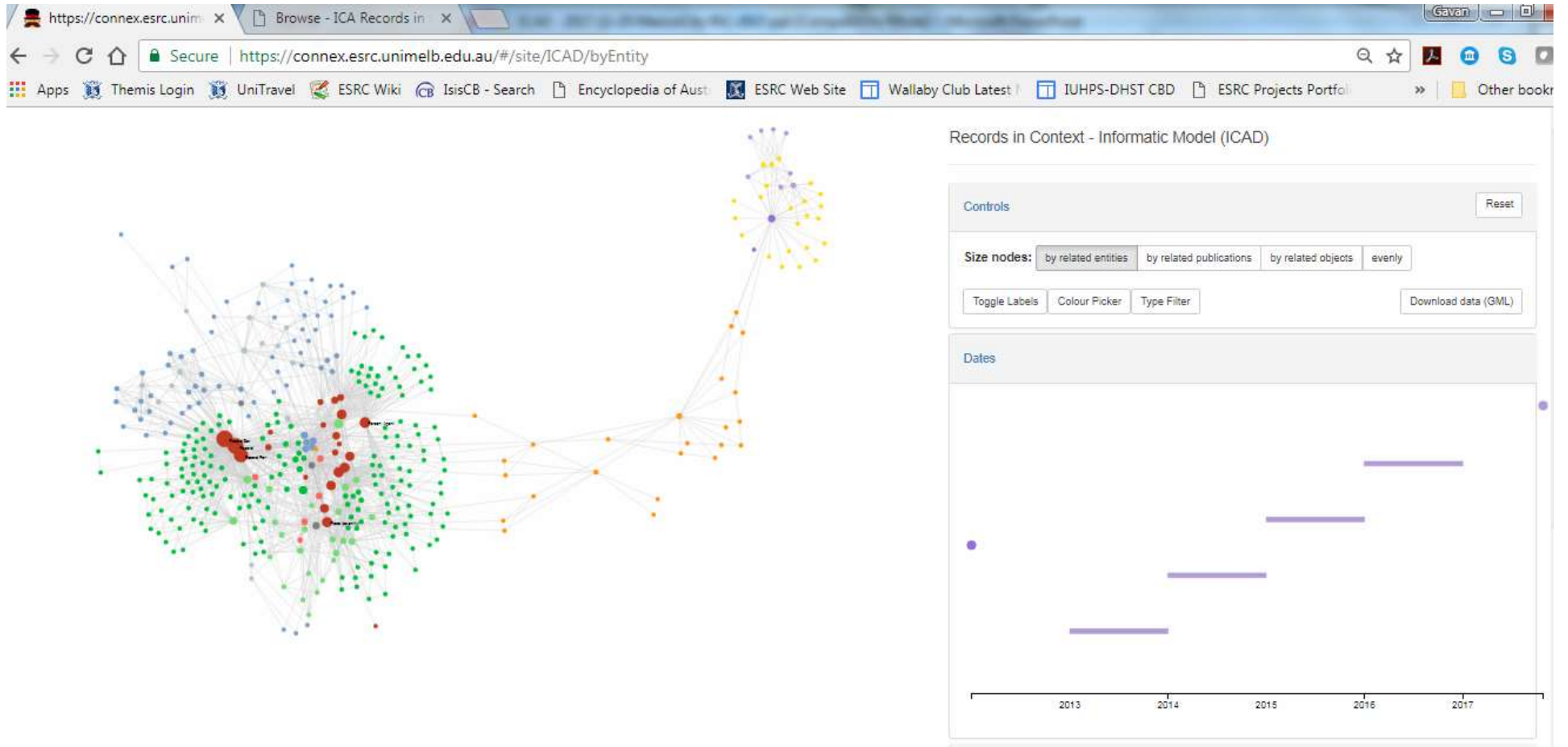
### Origin for Relation

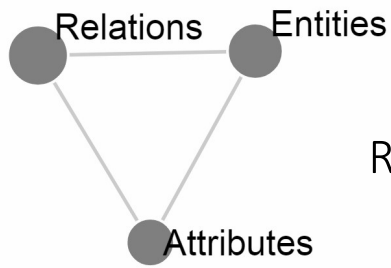
- ▀ [conforms to](#), [Archival Resource-Mandate](#)
- ▀ [had creation date](#), [Archival Resource-Date](#)
- ▀ [had holding location](#), [Archival Resource-Place](#)
- ▀ [had part](#), [Entity-Entity](#)
- ▀ [had rights held by](#), [Archival Resources-Agents](#)
- ▀ [has copy](#), [Resource-Resource](#)
- ▀ [has documentary form](#), [Archival Resource-Documentary Form](#)
- ▀ [has draft](#), [Archival Resource- Archival Resource](#)
- ▀ [has holding location](#), [Archival Resource-Place](#)
- ▀ [has missing part](#), [Archival Resource- Archival Resource](#)
- ▀ [has original](#), [Archival Resource- Archival Resource](#)
- ▀ [has part](#), [Entity-Entity](#)
- ▀ [has rights held by](#), [Archival Resource-Agent](#)
- ▀ [has subject](#), [Archival Resource-Entity](#)
- ▀ [is accumulated by](#), [Archival Resource-Agent](#)
- ▀ [is addressed to](#), [Archival Resource-Agent](#)
- ▀ [is annotated by](#), [Archival Resource-Agent](#)
- ▀ [is associated with](#), [Entity-Entity](#)
- ▀ [is authored by](#), [Archival Resource-Agent](#)
- ▀ [is collected by](#), [Archival Resource-Agent](#)
- ▀ [is copy of](#), [Resource-Resource](#)
- ▀ [is draft of](#), [Archival Resource- Archival Resource](#)
- ▀ [is evidence of](#), [Archival Resource-Entity](#)
- ▀ [is held by](#), [Archival Resource-Agent](#)
- ▀ [is managed by](#), [Archival Resource-Agent](#)
- ▀ [is member of](#), [Entity-Entity](#)
- ▀ [is original of](#), [Archival Resource- Archival Resource](#)
- ▀ [is owned by](#), [Archival Resource-Agent](#)
- ▀ [is predecessor of](#), [Entity-Entity](#)

# ConneX: Contextual Network Explorer

Visualise and Explore the Context Entity relationships in an OHRM dataset.

A product of the eScholarship Research Centre, The University of Melbourne Library.

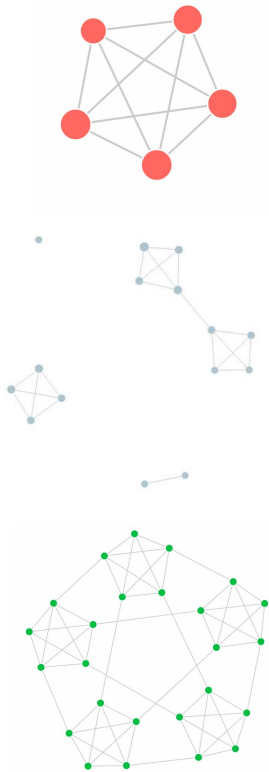




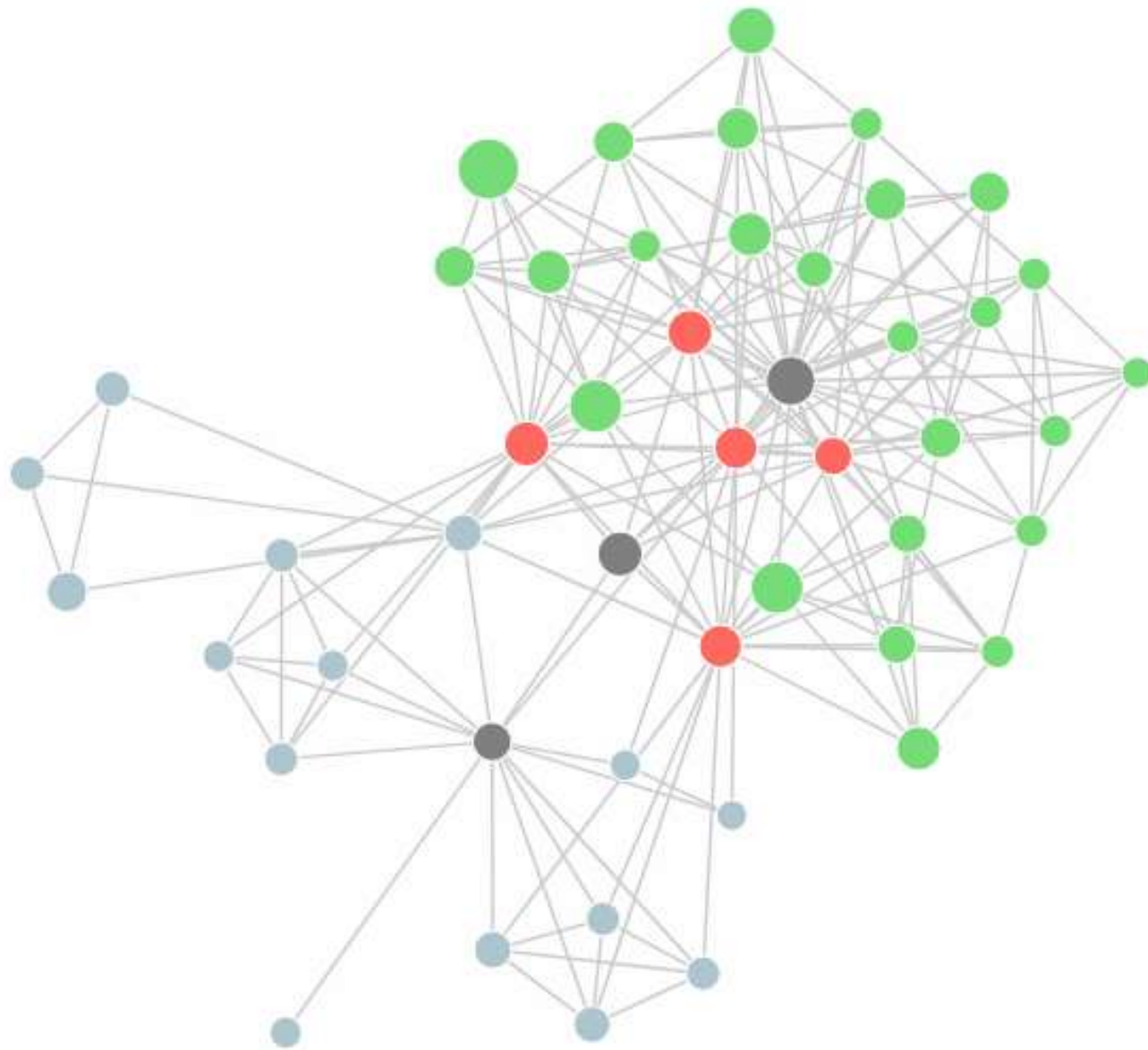
## Conceptual model – Informatic model:

Representing within the world (Domain)

The objects that are essential for records managers and archivists to fulfill their responsibilities



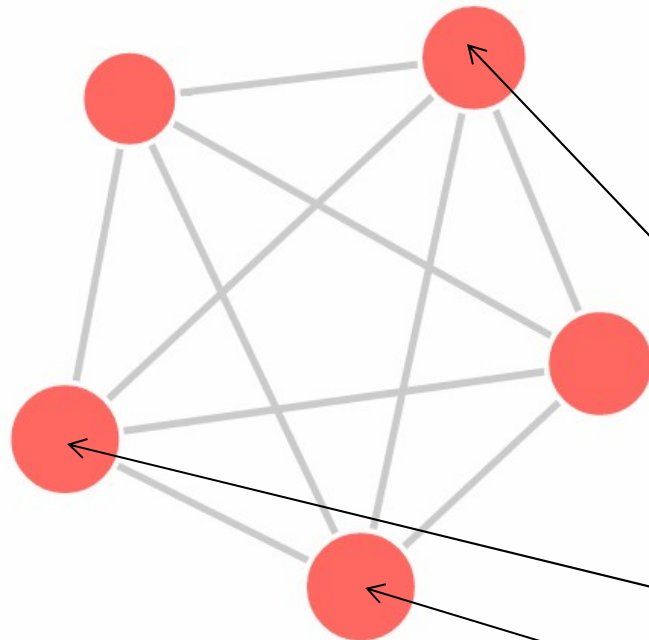
- Model each object of interest (**Entity**)
- Model the essential characteristics of each entity (**Attribute**)
- Model the relations among the entities (**Relation**)



ICA Experts Group on Archival Description

# From the Current ICA Standards to RiC-CM

- Current ICA description standards
  - ISAD – records
  - ISAAR – corporate bodies, persons, and families
  - ISDF – functions, activities, ...
  - ISDIAH – archival holding institutions



- RiC-CM has three top-level entities
  - **Record Object** (more and less than ISAD, as it focuses just on of records and individual records)
  - **Agent** (subsumes both ISAAR and ISDIAH)
  - **Function** (ISDF)

# Primary and Secondary Entities

Each of these entities has **Attributes**, essential characteristics that together make each unique, what it is. For example, a Name or Title, a Date, History ...

**Agent**

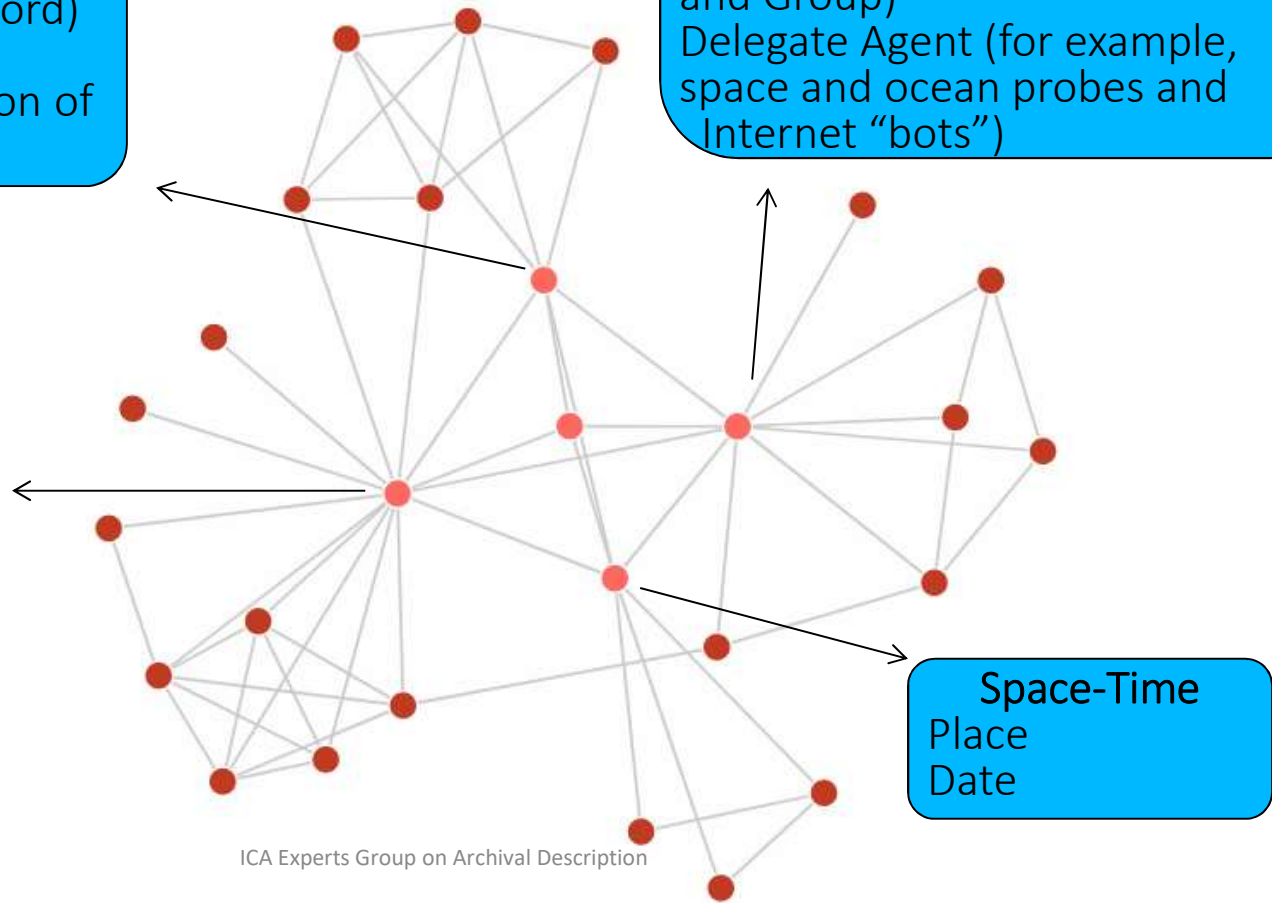
- Person
- Group
  - Family
  - Corporate Body
- Position (intersection of Person and Group)
- Delegate Agent (for example, space and ocean probes and Internet "bots")

**Record Object**

- Record (individual record)
- Record Part
- Record Set (aggregation of records)

**Function**

- Goal (purpose or objective)
- Activity
- Transaction
- etc ...



**Space-Time**

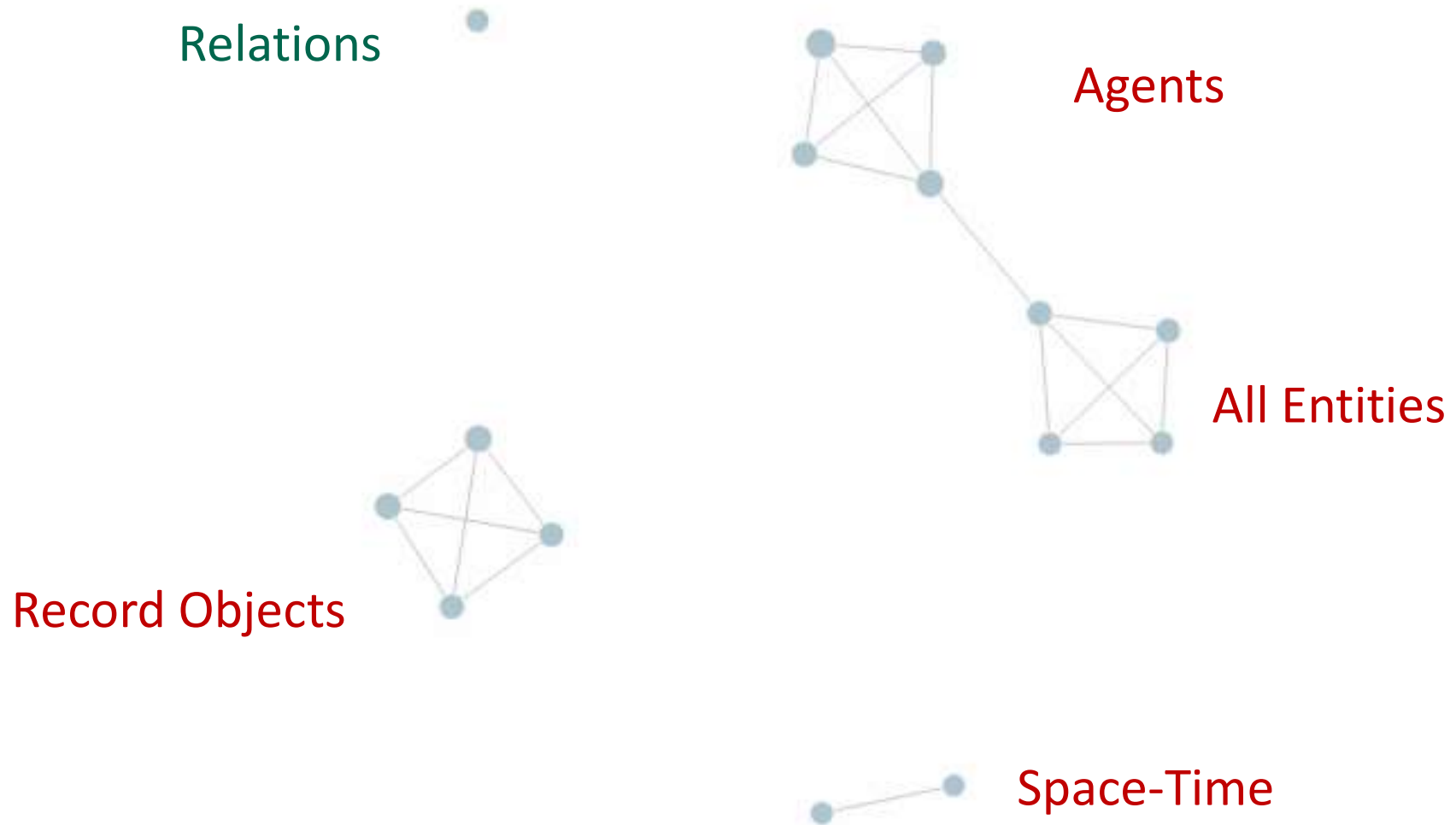
- Place
- Date



# Qualifying Entities Used as Attributes in the Description of Primary and Secondary Entities

- Optimally maintained as controlled terms or values
  - Occupation (of person)
  - Function (Concept) includes Goal, Activity, Transaction (as concepts)
  - Record Classification
  - Documentary Form
- Place
  - Jurisdictions
  - Geographical features
  - Latitude, longitude
  - Complex boundaries
- Date
  - Single date
  - Date range
  - Non-contiguous dates
  - Expression of a date has attributes
    - Precision of date (uncertainty/certainty)
    - Calendar system
  - Standardized form of expression: ISO 8601, or the Extended Date-Time Format

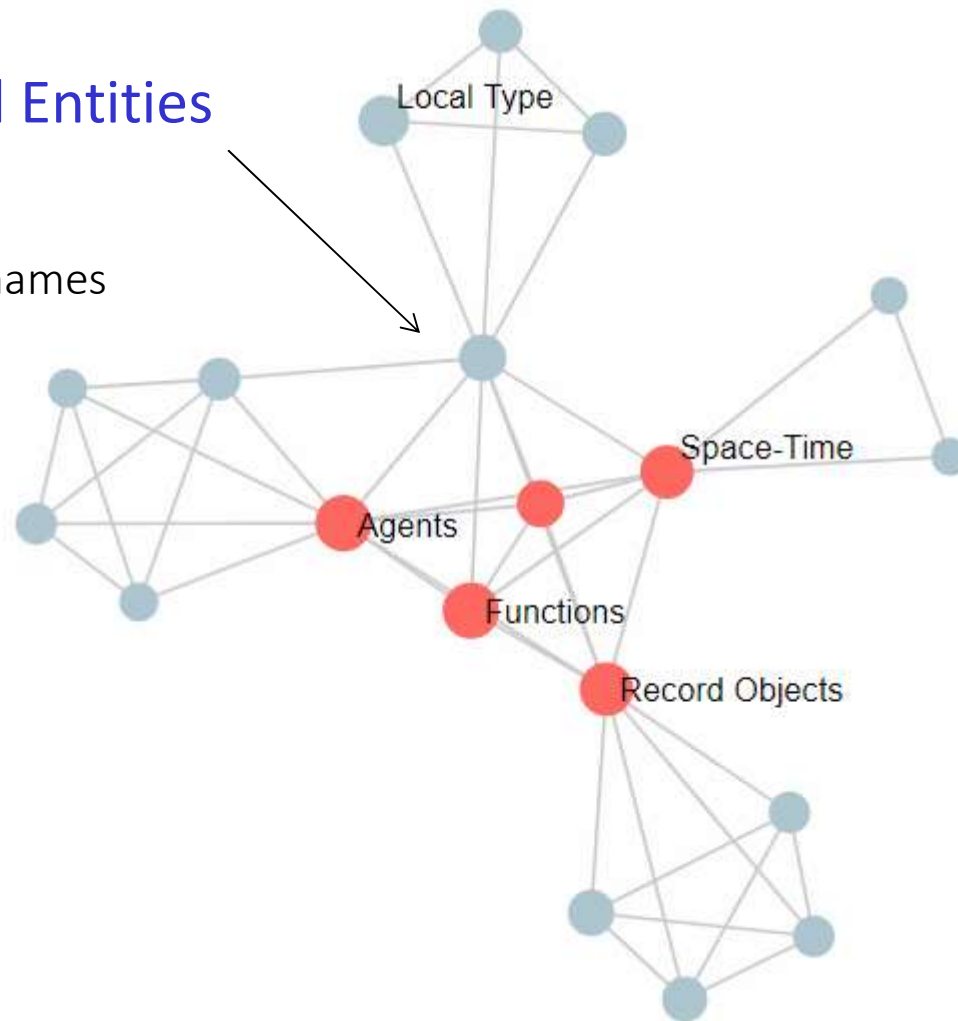
# Sets (and clusters) of **Attributes** (Properties in RiC-CM 2016) Used in the Description of Primary and Secondary Entities



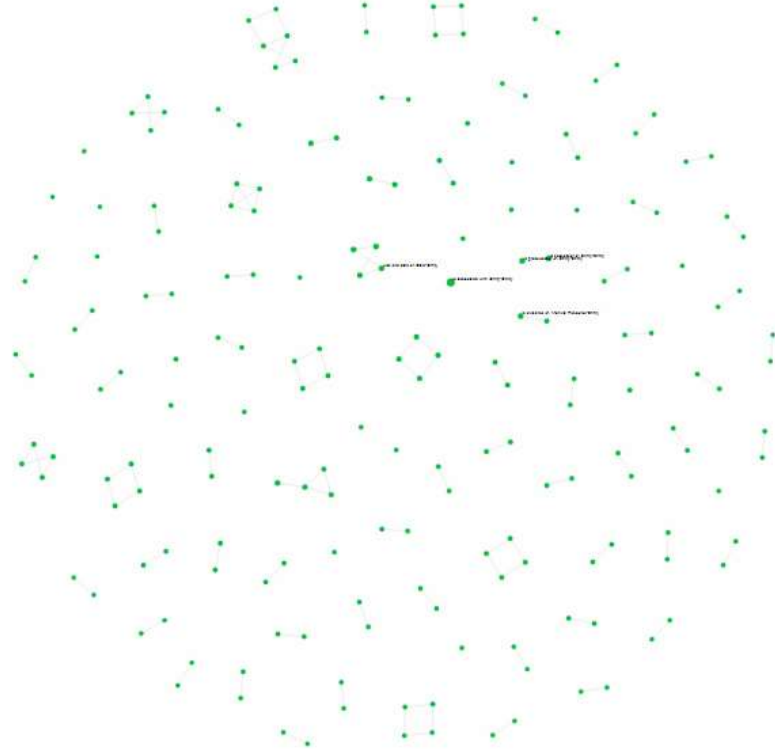
# Sets of **Attributes** Used in the Description of **Primary Entity** Sets

## Shared Attributes of All Entities

e.g. Name and Identifier  
Name control  
Authorized or preferred names  
Alternative names  
Parallel names  
Identifier control  
Global identifier  
Local identifier



# Relations Used in the Description of RiC Entities



## Relations

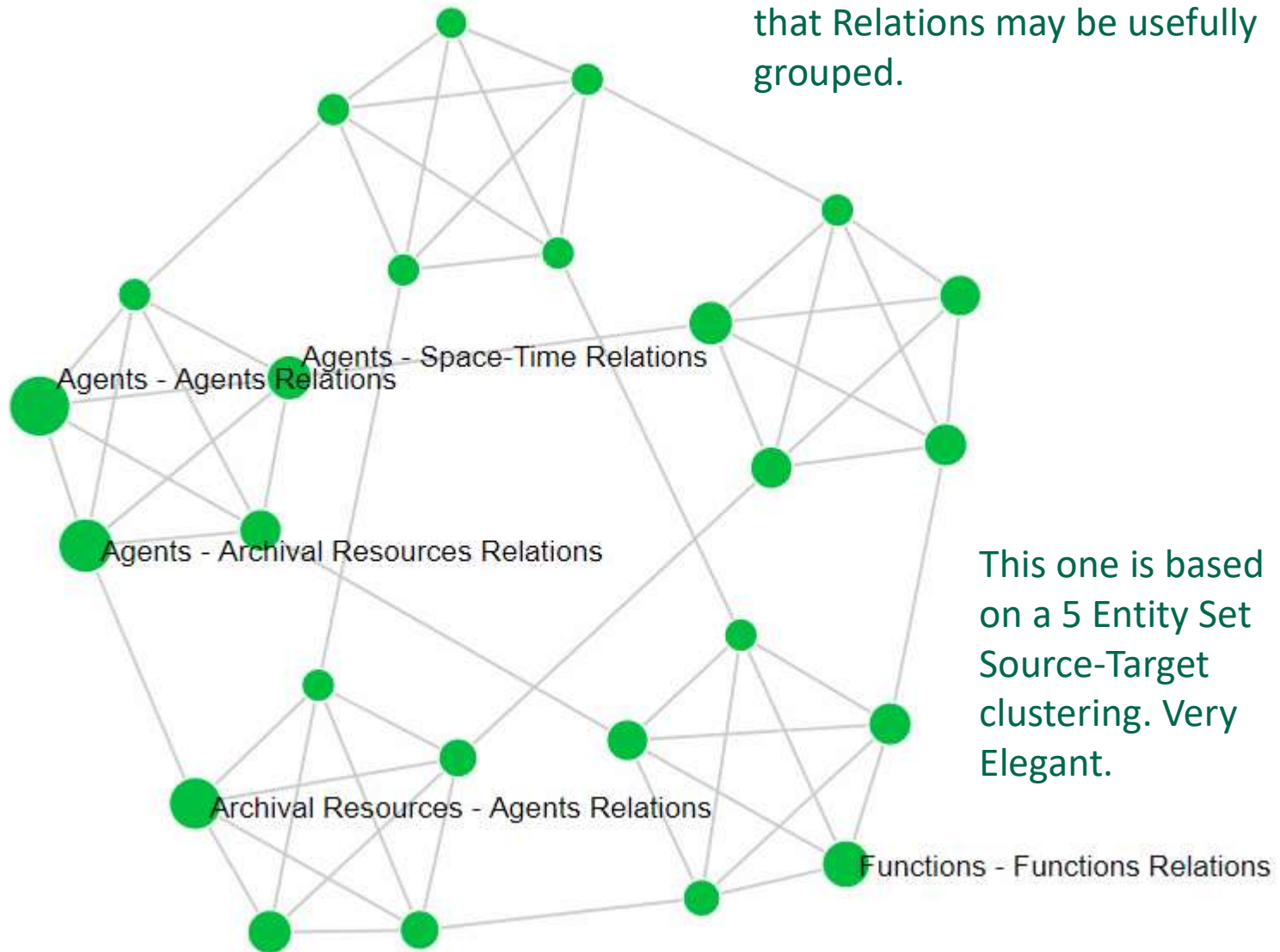
- Kinds of relations among Record Objects, Agents, and Functions, and the sub-entities
- Types of relations treated as a graph (broader/narrower; primarily hierarchical but ...)
- Directional
  - Corporate body X has member Person A / Person A is member of Corporate body X
- Reduce to a basic and essential set [in RiC-CM 2016 there were 792 registered relations]
- Though extensible: general to specific

Relation Groups	<b>A E F S</b>	25 entities
Relation Types	<b>A C D E F G H I M O P R S U W</b>	196 entities

Relations may be qualified by

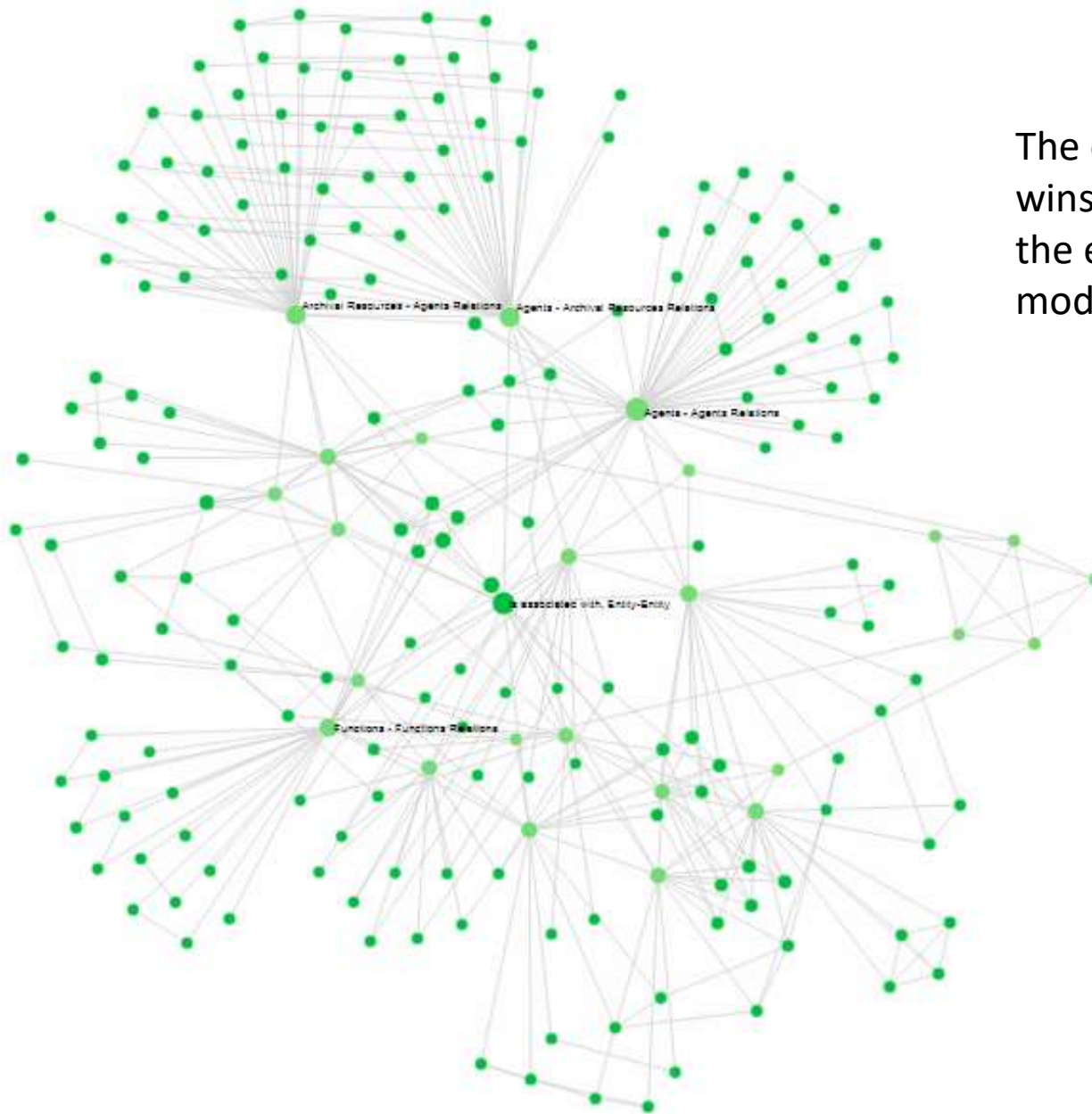
- Place and Date
- For example, *Person A resided in Place Z from March 1912 until April 1933*

This is one of any number of ways that Relations may be usefully grouped.



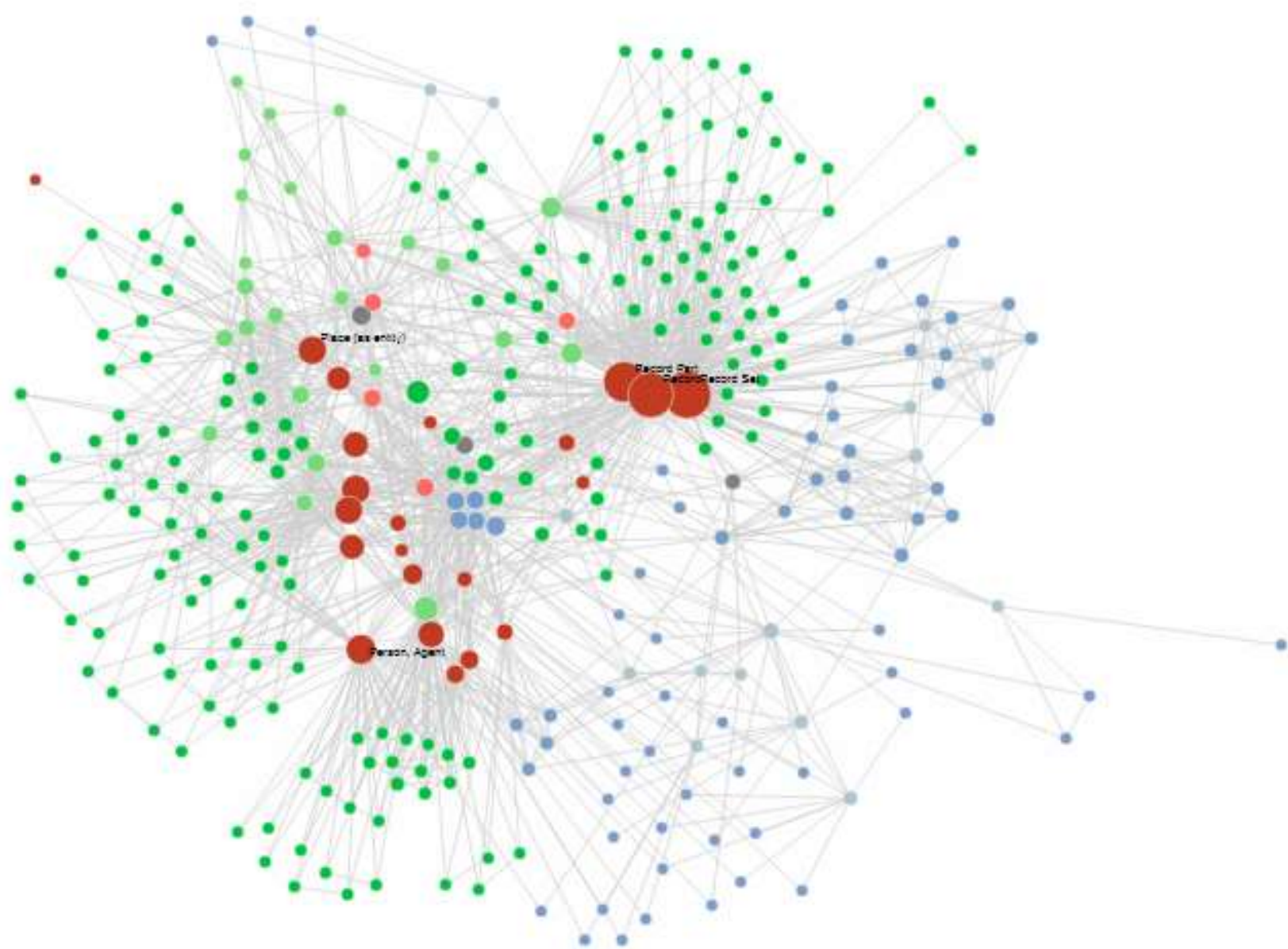
This one is based on a 5 Entity Set Source-Target clustering. Very Elegant.

The chaos of reality  
wins out against  
the elegance of  
models.



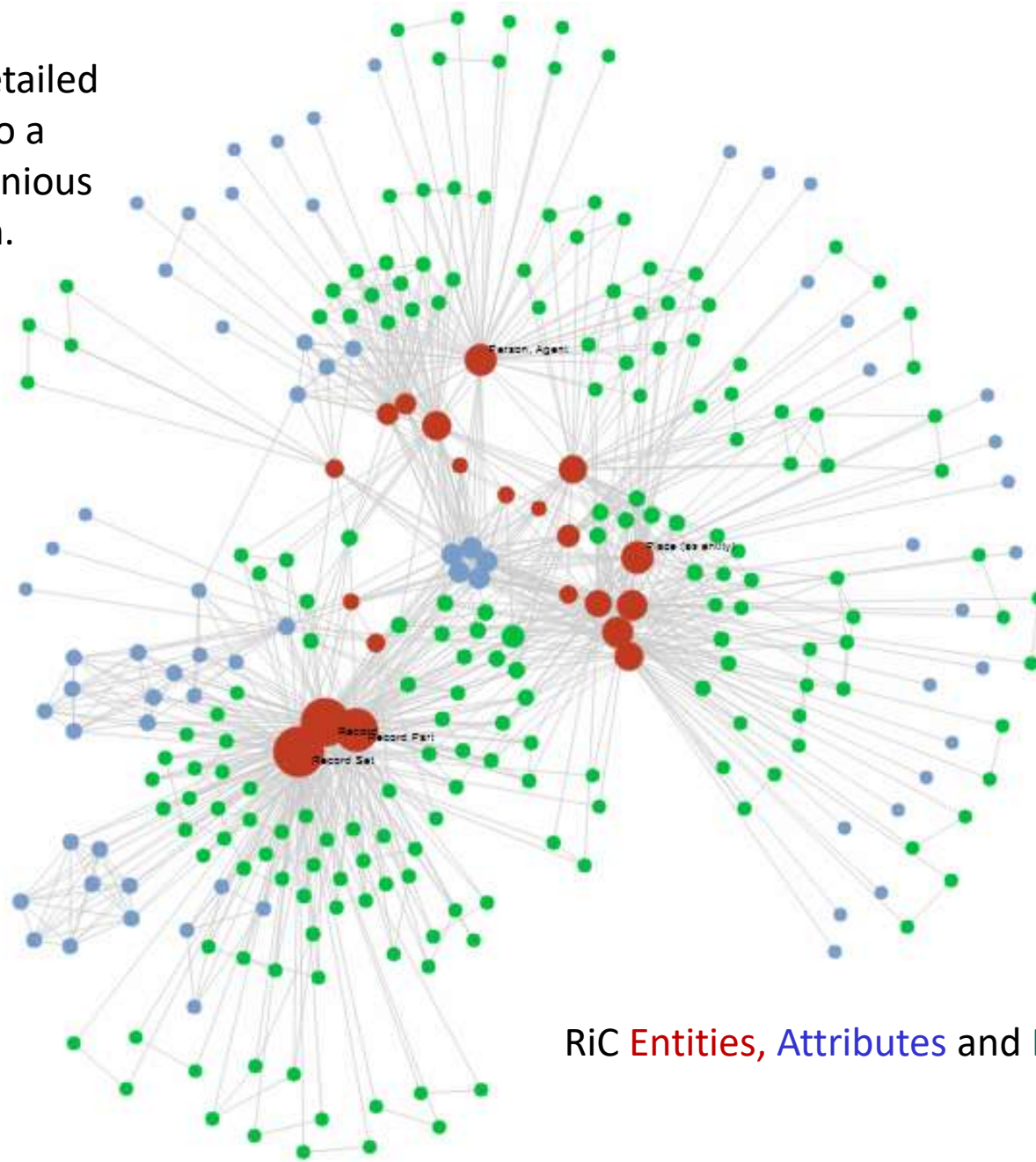
## RiC Relation Types with the Relations Groups

ICA Experts Group on Archival Description



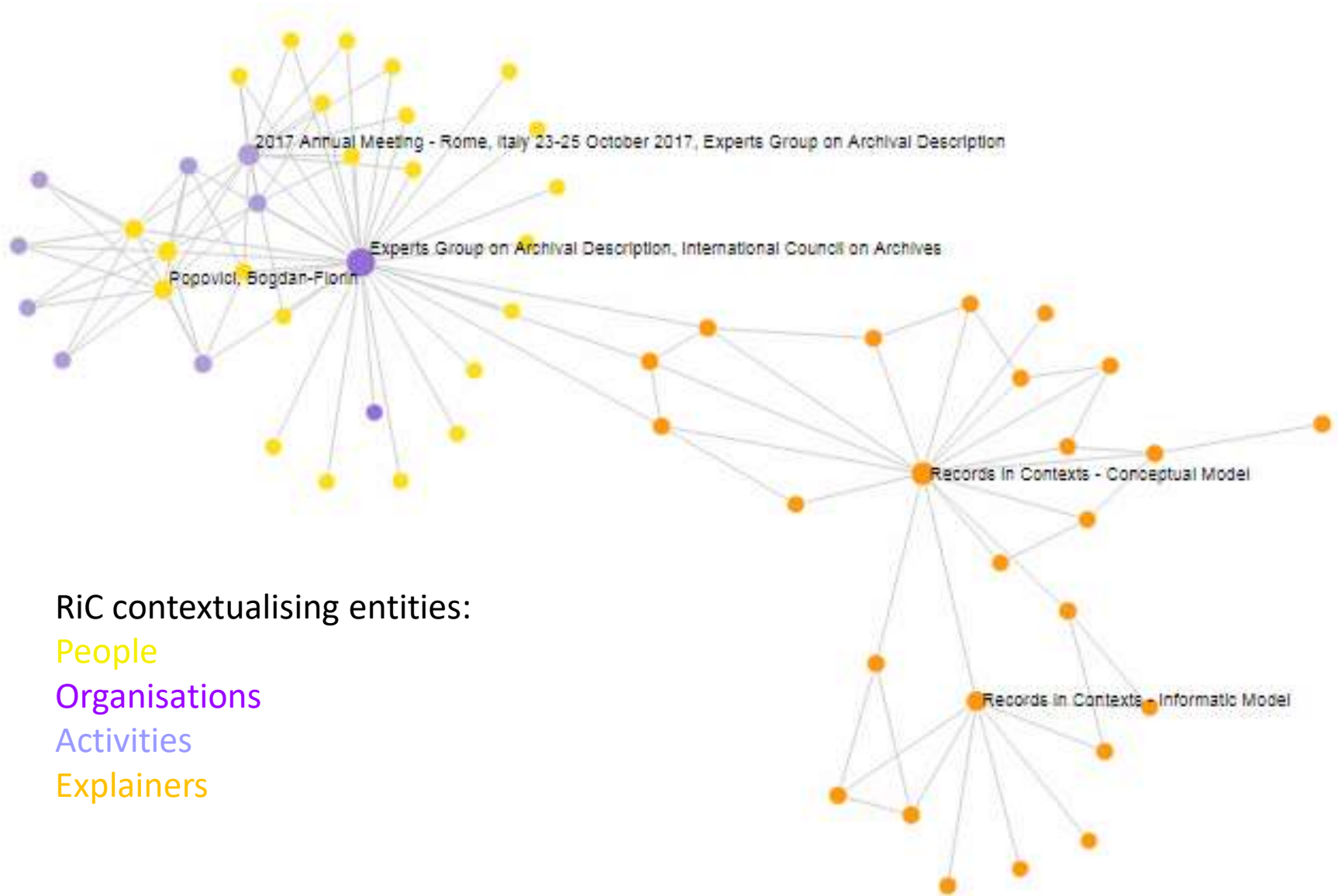
RiC **Entities**, **Attributes** and **Relations** with the higher level Domains, Sets and Groups

79 pages of detailed text reduced to a single parsimonious network graph.



RiC **Entities**, **Attributes** and **Relations** only





RiC contextualising entities:

People

Organisations

Activities

Explainers

**Thank you!**