

Records in Contexts  
(RiC)  
An Archival Description Draft Standard



INTERNATIONAL COUNCIL ON ARCHIVES  
EXPERTS GROUP ON ARCHIVAL DESCRIPTION

ICA Congress

Seoul

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# Presentation Overview

Introduction: Background, Context, Pivotal Changes

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Records in Contexts-Ontology (RiC-O)

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# Records in Contexts (RiC): Introduction

Daniel Pitti

Institute for Advanced Technology in the Humanities, University of Virginia  
EGAD Chair/President

## 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
- 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 created, accumulated, and used 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

# 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)
  - The Conceptual Model resembles the current ICA standards
  - Documents the key entities of archival description and the properties of each
  - With diagrams illustrating how the components are interrelated to form complete archival description
  - RiC-CM available for comment until 31 December 2016.
- An Ontology for archival description (RiC-O)
  - Based on RiC-CM
  - Expressed using the W3C OWL language
  - Will map archival description 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
  - RiC-O draft available late 2016

## 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

- To repeat

- Records in Contexts

- More expansive understanding of Provenance
- Records and the people that create, manage, and use them do not exist in isolation but in complex layers of interrelated, interdependent contexts

# To RiC: Pivotal Changes

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

Thank you!

# Records in Contexts-Conceptual Model (RiC-CM)

Bill Stocking

Royal Library and Royal Archives, United Kingdom

EGAD member

# Introduction

Today I will talk about:

- What we mean by a 'Conceptual Model' as a document – Records in Context (RiC)
- A tour of the draft of RiC put out for consultation
- Next steps...



# A 'Conceptual' Model?

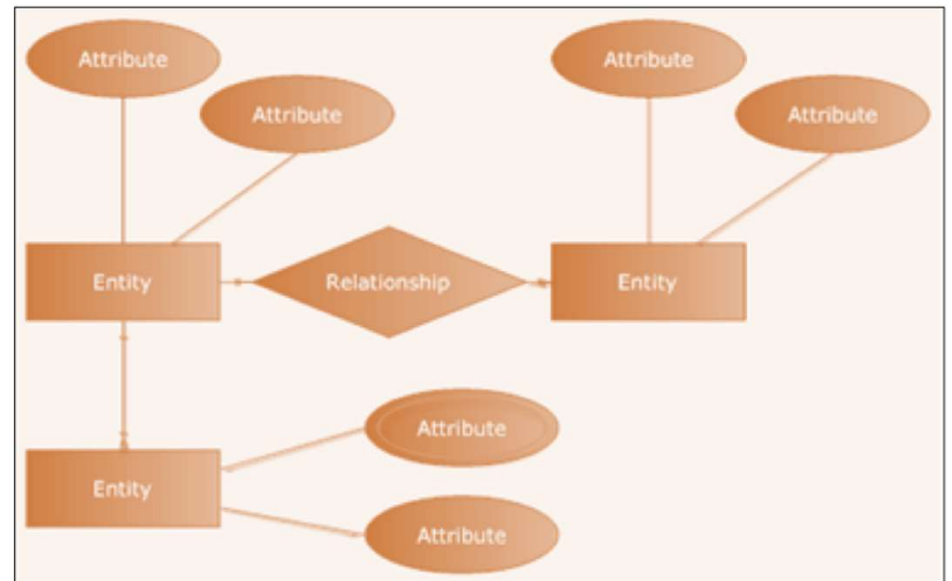
The conceptual model is a document that:

- Describes key high level concepts for archival description:

- Entities (Record, Agent, Function etc.)
- Their properties (id, name, description etc.)
- The relations between them (Record 'was created by' Agent)

- A generalised view of archival description that does not replace:

- detailed logical and physical data models
- cataloguing guidelines (e.g. DACS and other national guidelines)
- XML schema for data transmission (e.g. EAD3 or MARC)

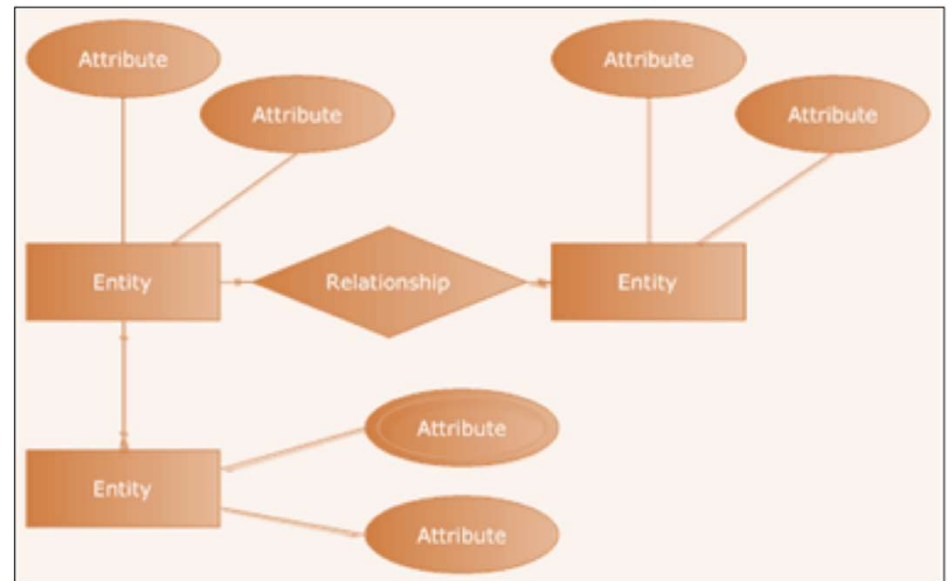




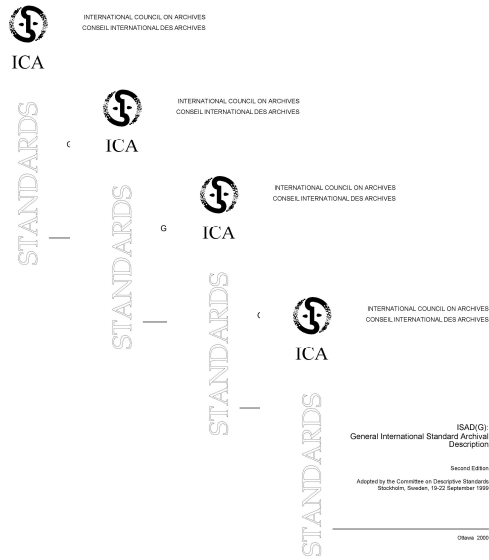
# A 'Conceptual' Model?

The conceptual model will be a document that:

- frames and respects current practice, systems and process yet provides a basis for their ongoing development
- informs ongoing professional discussions, education and training
- enables us to collaborate with other information professionals
- ensures archives take their proper place in the digital world



# Models Comparison: Data



DE GRUYTER  
LAMB

IFLA  
U B C I N

INTERNATIONAL FEDERATION OF  
LIBRARY ASSOCIATIONS AND INSTITUTIONS

FRBR-Library  
Reference Model

By Rita, Patrick Le Boeuf, and Mary Zeman  
Consultation Editorial Group  
of the IFLA FRBR Review Group

2004-03-21  
Draft for World-Wide Review  
Not yet endorsed by the IFLA Professional Committee or Governing Board

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Pat. Riv. Patrick Le Boeuf, and Mary Zeman, 2016



Modelo Conceptual de Descripción Archivística y  
Requisitos de Datos Básicos de las Descripciones de  
Documentos de Archivo, Agentes y Funciones

Parte 1: Tipos de Entidad

Parte 2: Relaciones

Documento de la CNECA (15-00-2012)

CNECA/NECA/ModeloConceptualTiposEntidadRelaciones20120618



FINNISH CONCEPTUAL MODEL FOR ARCHIVAL  
DESCRIPTION

Draft version 0.1  
1.3.2013

Australian Government  
Recordkeeping Metadata  
Standard Implementation  
Guidelines

Version 2.0

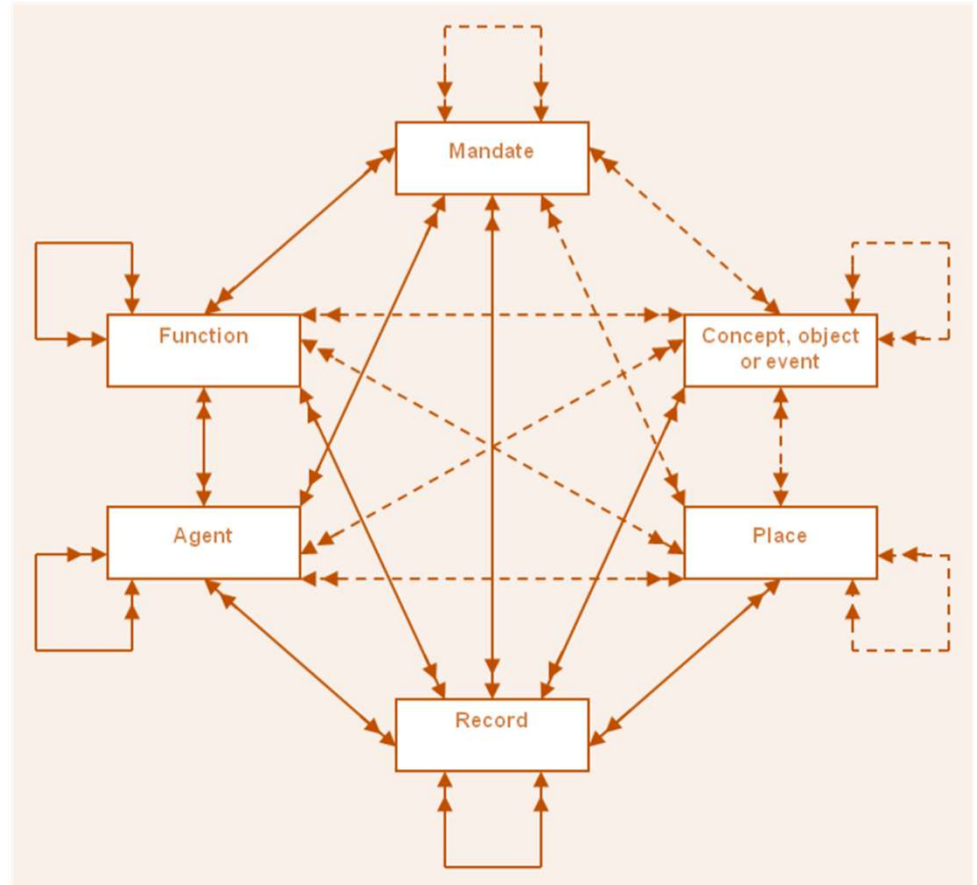
Australian Government  
Recordkeeping Metadata Standard  
Version 2.0

July 2008

# Models Comparison: Findings

We found:

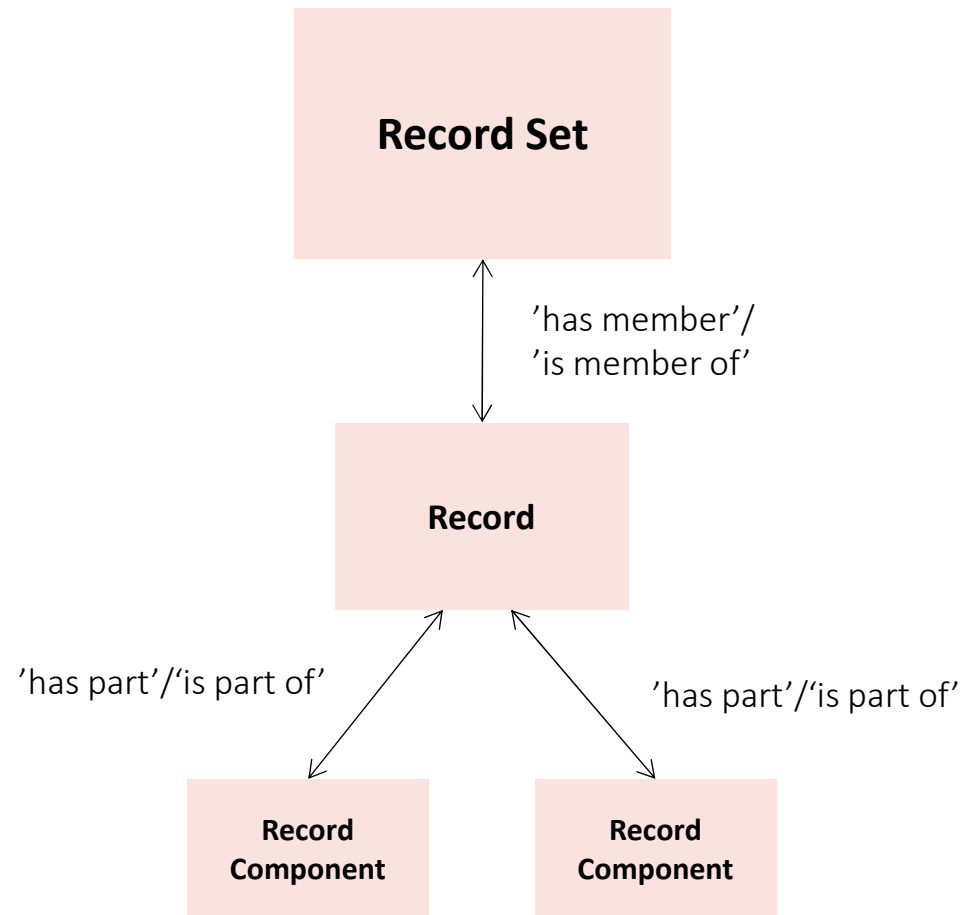
- Differences in perspective due to the differing contexts of modelling
- A great deal of agreement now reflected in RiC:
  - key entities for archivists: Record, Agent, and Business entities
  - contextual entities shared with others: Places, Dates, Topics, Events etc
  - significant properties of, and relations between, entities for archival description



# Record Entities:

Currently we have three Record entities in RiC:

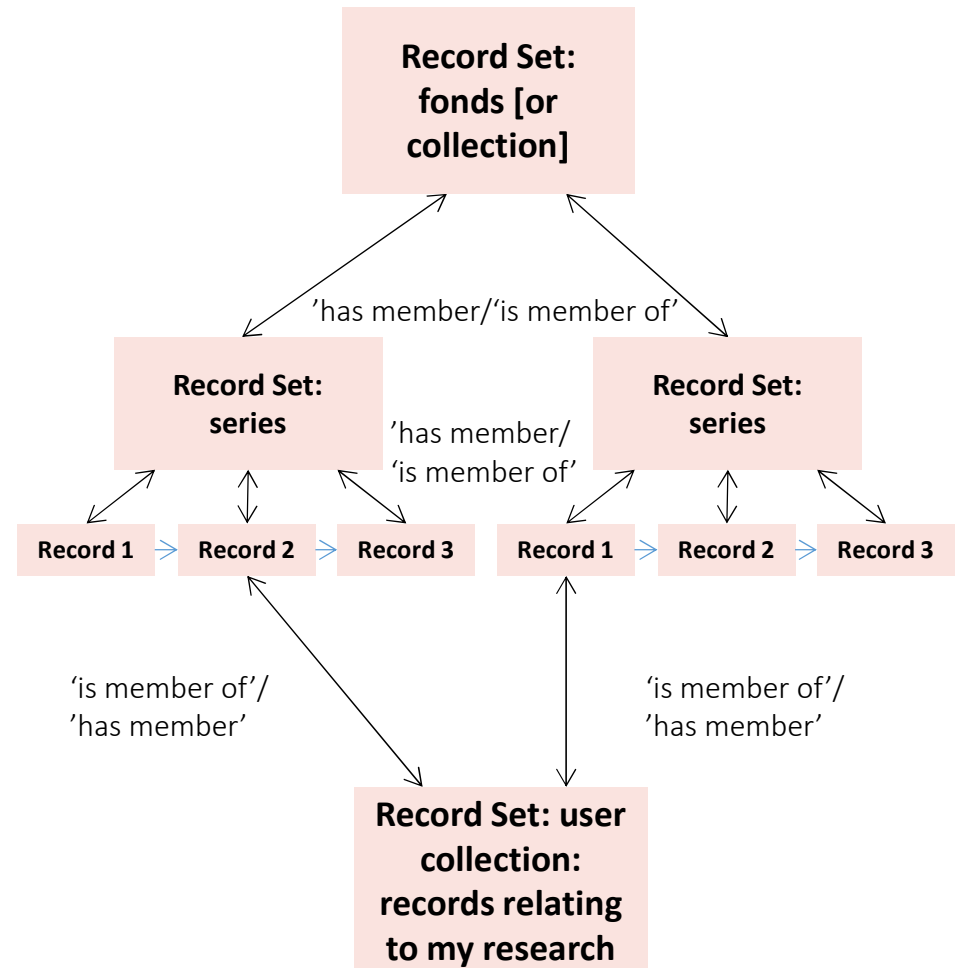
- **Record:** 'linguistic, symbolic, or graphic information represented in any persistent form, on any durable carrier, by any method, by an Agent in the course of life or work events and Activities' - the 'item' level in ISAD(G)
- **Record Component:** the parts that make up a Record
- **Record Set:** the groups or aggregations of which a Record may be a member



# Record Entities: Record Set

## Record Set:

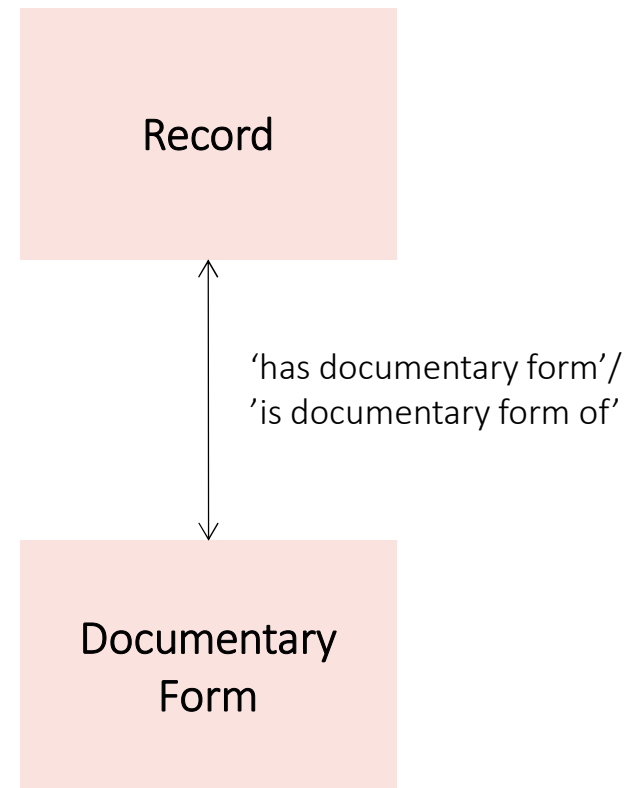
- Records grouped together by an Agent based on shared properties in order to serve their own ends: provenance, topic, place etc
- May hold other record sets in a hierarchy so caters for traditional multi-level provenance based description at fonds or series 'level', and other types of 'collections'
- Also allows records to be grouped in other ways by creators, archivists and users, simultaneously or over time



# Record Entities: Documentary Form

We also have the **Documentary Form** entity,  
which:

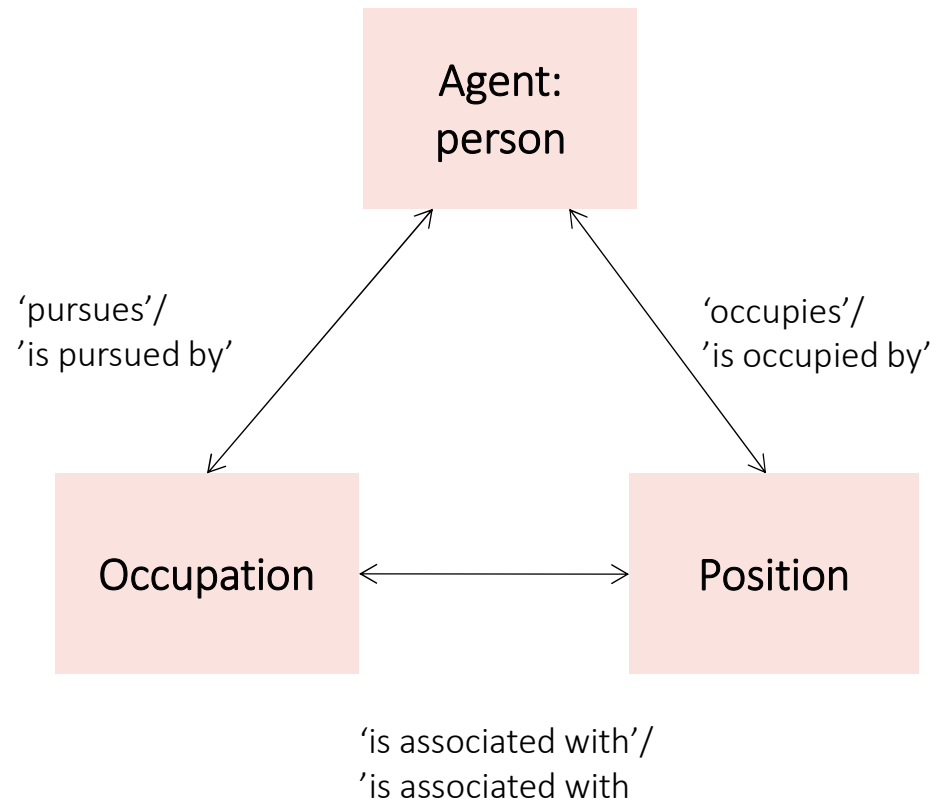
- allows the definition of the model that prescribes the particular format of a Record: a charter, a letter, an e-mail, a will etc
- connects RiC to Diplomatics



# People Entities:

## Agent entity:

- includes the following types:
  - Persons
  - Groups: corporate bodies; families
  - Delegate-Agents: software, robots, probes
- allows definition of identity types:
  - Given
  - Assumed
- has two related entities
  - **Occupation**: profession or trade
  - **Position**: role within a corporate body

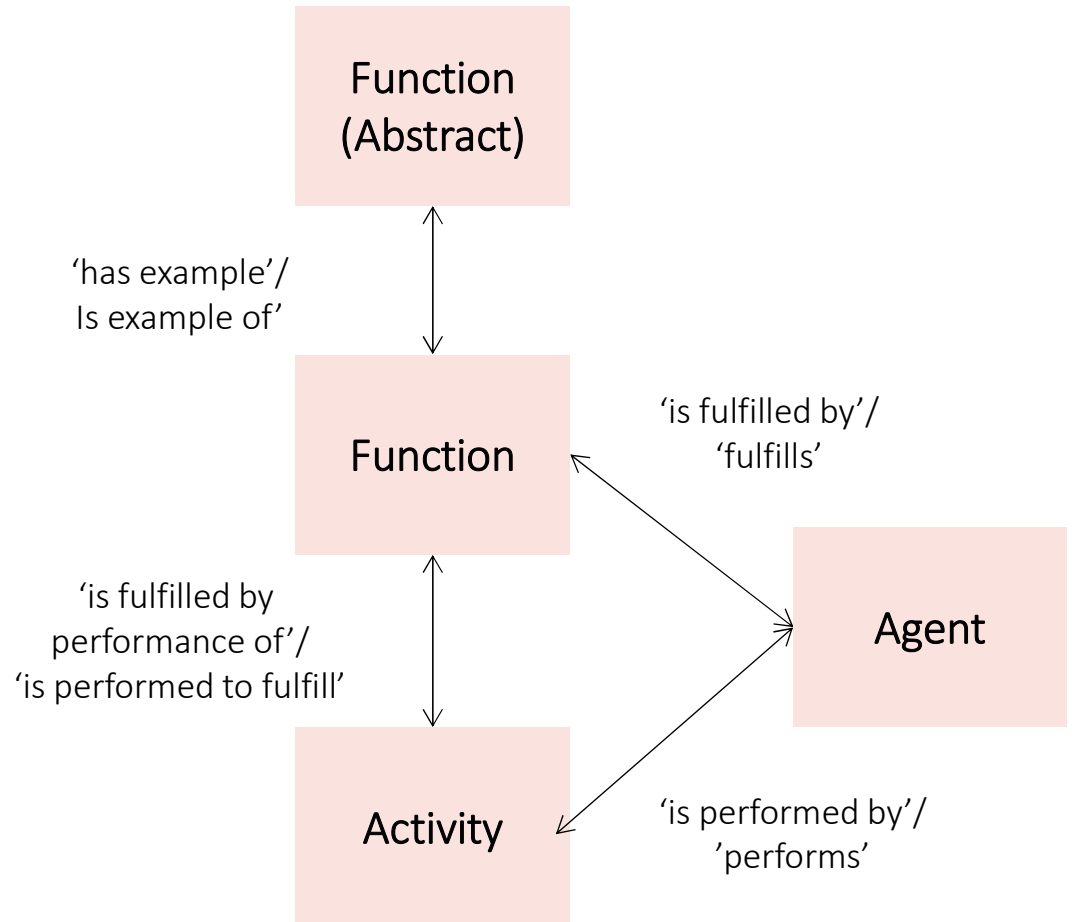


# Business Entities:

From ISDF, RiC has two separate entities for:

- **Function:** an Agent's broad goals or purposes
- **Activity:** actions performed by an Agent in fulfilment of functions:

Both are defined as being within a specific cultural context so in order to see generic functions independent of context there is also **Function (Abstract)**

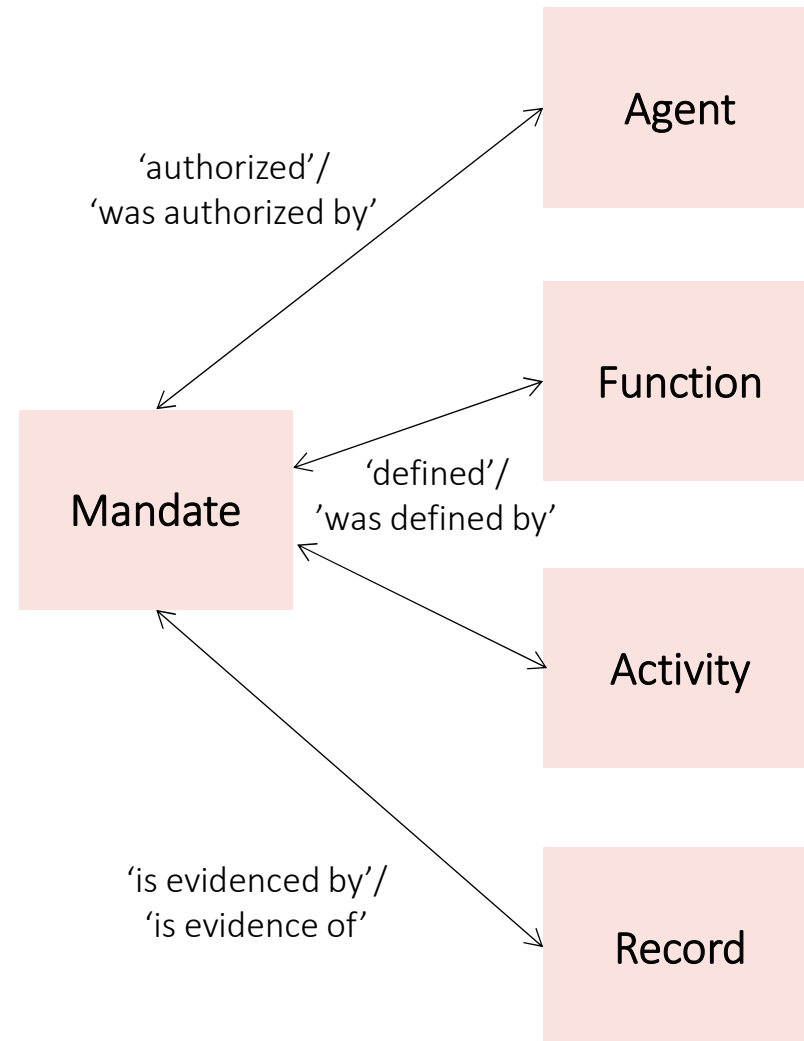




# Business Entities:

## Mandate:

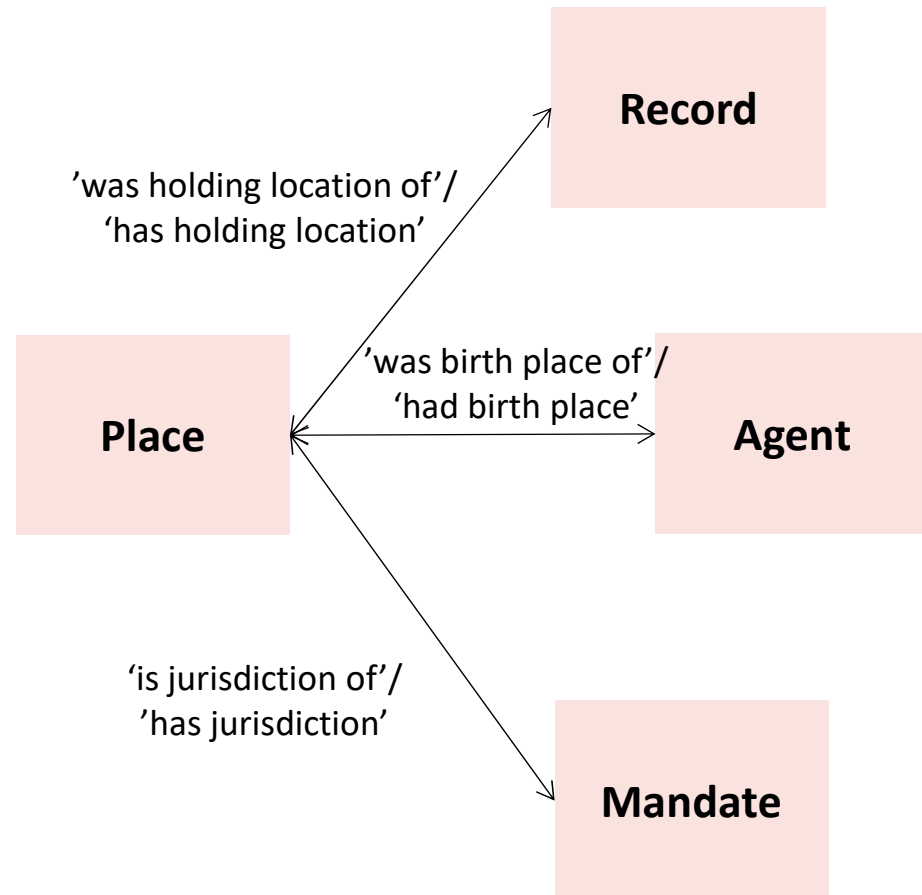
- authority or rules that define the functions and activities of Agents
- source of authority for an Agent to act, which may either be:
  - implied by social customs or personal motivation
  - expressed in documents such as laws, regulations, standards (e.g. RiC!)
- abstract and not to be confused with those documents that may give it expression



# Entities Shared with Others: Place

## Place:

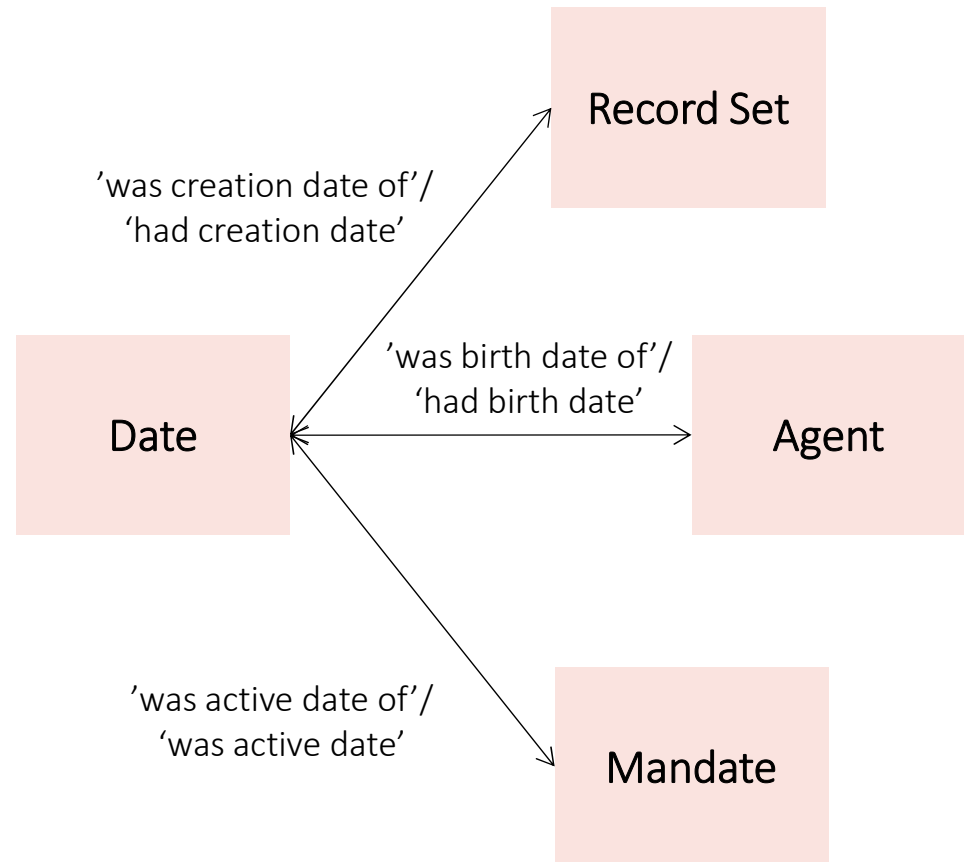
- Any geographic or administrative point or area
- enabling description of spatial contexts of other entities



# Entities Shared with Others: Date

## Date:

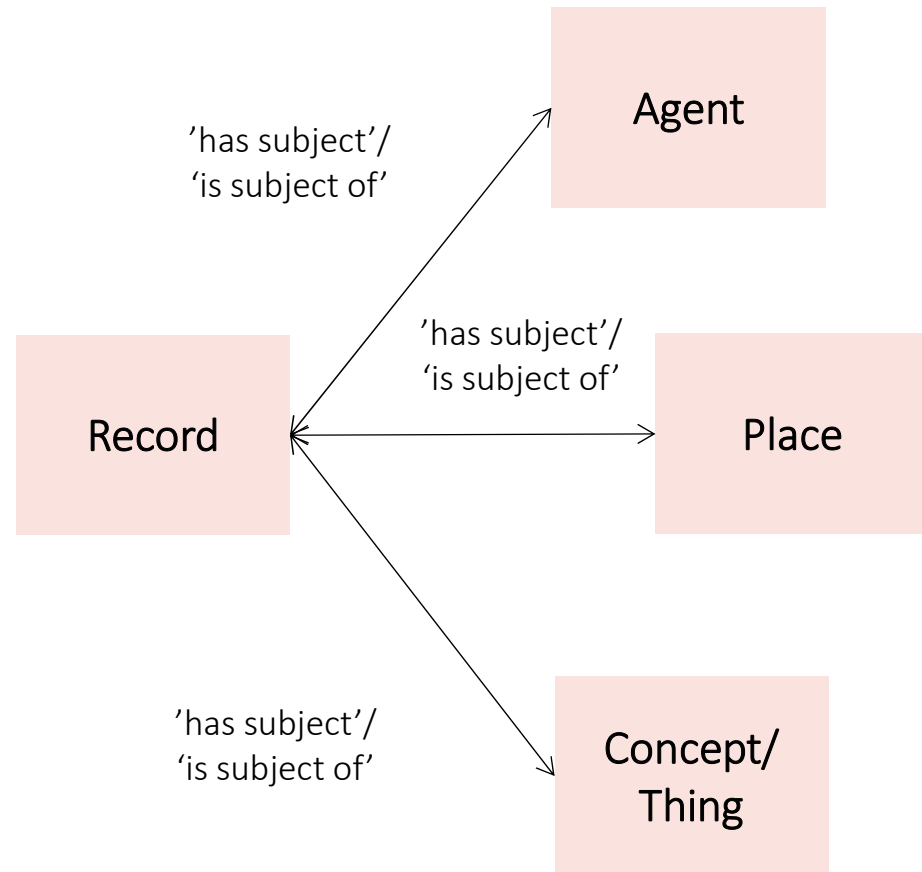
- chronological information based on any format
- enabling description of temporal contexts of other entities



# Entities Shared with Others: Concept/Thing

## Concept/Thing:

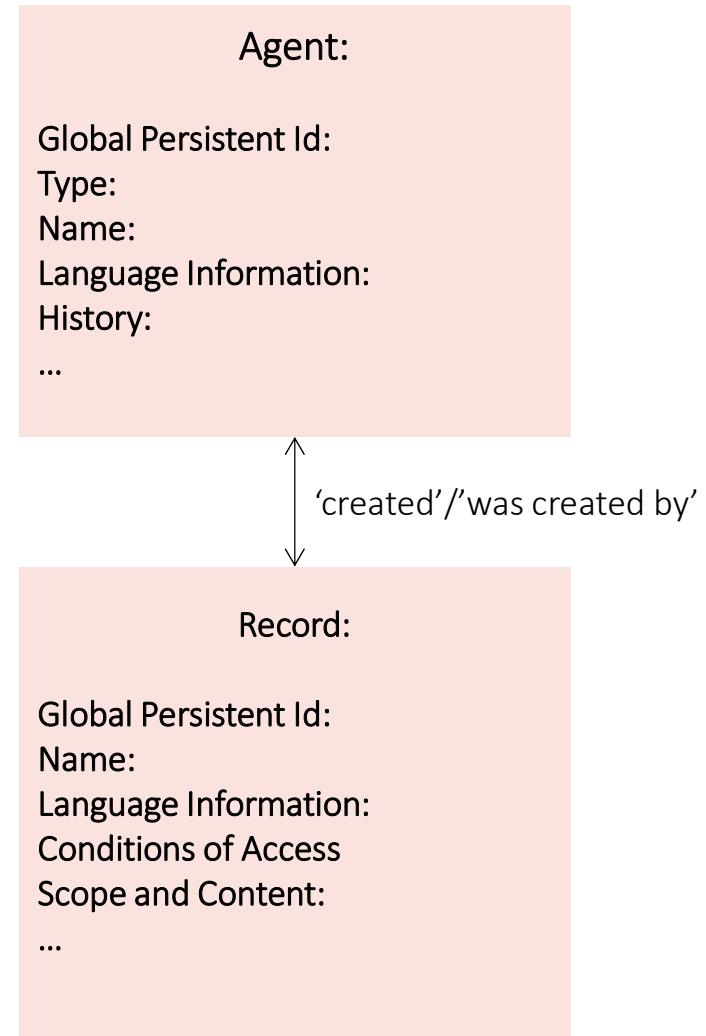
- broad topics that may be the subject of other entities
- includes abstract ideas, material things, events, including those that are legendary or fictitious



# Properties:

Entities have two types of property:

- Those that identify the entity that are common to all:
  - Globally Persistent Id and other 'local' ids
  - Name
  - General Note
- Those that describe the entity which will differ due to the different nature of the entities
- Many familiar from ISAD(G) etc:
  - Record has properties 'scope and content', 'language information', 'conditions of access' etc.
  - but not 'creator' as that modelled as a relation between a Record and an Agent



# Properties: Record (and Record Component) Specific

## Content:

- Authenticity and Integrity Note
- Content Type: *text, music...*
- Content Extent: *1 letter...*
- Quality of Information
- Scope and Content

## Carrier:

- Medium: *paper, magnetic disk...*
- Physical or Logical Extent: *5 pages...*
- Physical Characteristics Note

## Representation:

- Encoding Format: *text/csv; audio/mp4...*
- Language Information
- Media Type: *computer, unmediated...*
- Production Technique: *handwriting, recording...*

## Management and Use:

- Classification
- Conditions of Access
- Conditions of Use
- History
- Record State: *draft, copy...*

# Properties: Record Set Specific

## Properties of the Records Set:

- Accrual Note
- Accrual Status
- Arrangement
- Authenticity and Integrity Note
- Classification
- History
- Type: *fonds, series, file, collection...*

## Properties Summarizing the Members

### of a Record Set:

- Content Extent
- Physical or Logical Extent
- Scope and Content

## Properties that may be Shared by All Members of a

### Record Set:

- Conditions of Access
- Conditions of Use
- Content Type
- Encoding Format
- Language Information
- Media Type
- Medium
- Production Technique
- Record State

# Properties: Agent Specific

## Shared (all Types):

- Type: *person, group, delegate-agent...*
- Identity Type: *given, assumed...*
- Language Information
- History

## Property specific to Type = 'delegate-agent':

- Technical Characteristics

## Property specific to Type = 'person':

- Gender

## Properties specific to Type = 'corporate body':

- Services to the Public
- Contact Information
- Operating Hours
- Facilities



# Properties: Specific To Other Entities

## Date:

- Calendar
- Type

## Place:

- Address
- Geographic Coordinates
- Type

## Activity, Documentary Form, Function, Function

(Abstract), Mandate, Occupation, Position:

- Description
- History
- Type

## Concept/Thing:

- Description
- Type

# Relations

Relations between entities are expressed in simple

binary format in both directions:

- relations are named in the past tense where the actions expressed have completed
- all entities have general 'is associated with' and 'was associated with' relations with each other as well as more specific relations

The list in the draft remains suggestive not complete

with those reflecting:

- the who, what and where of records' creation, transmission, management and use

4.2.1 Record Relations					
Relation Number	Relation Domain	Relation Name	Relation Range	Inverse Relation Name and Number	Comments
RIC-R1	Record	has copy	Record	is copy of (RIC-R6)	
RIC-R2	Record	has draft	Record	is draft of (RIC-R7)	
RIC-R3	Record	has original	Record	is original of (RIC-R8)	
RIC-R4	Record	has subject	Record	is subject of (RIC-R10)	
RIC-R5	Record	is associated with	Record	is associated with (RIC-R5)	See also RIC-R12
RIC-R6	Record	is copy of	Record	has copy (RIC-R1)	
RIC-R7	Record	is draft of	Record	has draft (RIC-R2)	
RIC-R8	Record	is original of	Record	has original (RIC-R3)	
RIC-R9	Record	is predecessor of	Record	is successor of (RIC-R11)	
RIC-R10	Record	is subject of	Record	has subject (RIC-R4)	
RIC-R11	Record	is successor of	Record	is predecessor of (RIC-R9)	
RIC-R12	Record	was associated with	Record	was associated with (RIC-R12)	See also RIC-R5
RIC-R13	Record	had part	Record Component	was part of (RIC-R76)	See also RIC-R14
RIC-R14	Record	has part	Record Component	is part of (RIC-R74)	See also RIC-R13
RIC-R15	Record	is associated with	Record Component	is associated with (RIC-R73)	See also RIC-R16
RIC-R16	Record	was associated with	Record Component	was associated with (RIC-R75)	See also RIC-R15
RIC-R17	Record	is associated with	Record Set	is associated with (RIC-R134)	See also RIC-R19
RIC-R18	Record	is member of	Record Set	has member (RIC-R133)	See also RIC-R20
RIC-R19	Record	was associated with	Record Set	was associated with (RIC-R135)	See also RIC-R17
RIC-R20	Record	was member of	Record Set	had member (RIC-R132)	See also RIC-R18
RIC-R21	Record	had rights held by	Agent	was rights holder of (RIC-R214)	See also RIC-R22
RIC-R22	Record	has rights held by	Agent	is rights holder of (RIC-R206)	See also RIC-R21
RIC-R23	Record	has subject	Agent	is subject of (RIC-R207)	
RIC-R24	Record	is associated with	Agent	is associated with (RIC-R204)	See also RIC-R28
RIC-R25	Record	is held by	Agent	is holder of (RIC-R205)	See also RIC-R32
RIC-R26	Record	is owned by	Agent	owns (RIC-R209)	See also RIC-R33
RIC-R27	Record	was addressed to	Agent	was addressee of (RIC-R211)	
RIC-R28	Record	was associated with	Agent	was associated with (RIC-R212)	See also RIC-R24
RIC-R29	Record	was authored by	Agent	authored (RIC-R201)	
RIC-R30	Record	was collected by	Agent	collected (RIC-R202)	
RIC-R31	Record	was created by	Agent	created (RIC-R203)	
RIC-R32	Record	was held by	Agent	was holder of (RIC-R213)	See also RIC-R25
RIC-R33	Record	was owned by	Agent	owned (RIC-R208)	See also RIC-R26
RIC-R34	Record	was sent by	Agent	sent (RIC-R210)	
RIC-R35	Record	was written by	Agent	wrote (RIC-R215)	
RIC-R36	Record	has subject	Occupation	is subject of (RIC-R331)	
RIC-R37	Record	is associated with	Occupation	is associated with (RIC-R330)	See also RIC-R39
RIC-R38	Record	resulted from	Occupation	resulted in (RIC-R332)	
RIC-R39	Record	was associated with	Occupation	was associated with (RIC-R333)	See also RIC-R37
RIC-R40	Record	has subject	Position	is subject of (RIC-R371)	

# Relations

The list in the draft remains suggestive not complete with those reflecting:

- subjects of records
- temporal (successor/predecessor) and hierarchical (superior/subordinate) relations between instances of the same entity
- The doing of business by agents and the when and where they are doing it
- family relations for persons

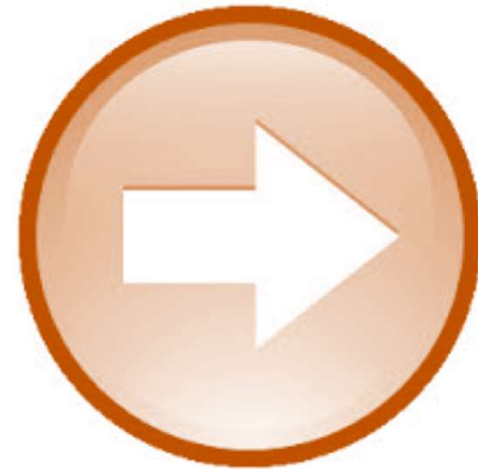
The addition of Date and Place properties allows expression of greater context for some relations



# Next Steps

So a first draft but still things to do:

- Receive, digest and respond to feedback
- Model 'control' information re creation and management of descriptions
- Discuss and develop the obligation and repeatability status of the properties
- Agree and define the full set of relations for the model
- Agree the final documentation necessary, including explanation, diagrams and examples



Thank you!

# Records in Contexts-Ontology (RiC-O)

Florence Clavaud

Archives nationales, France

EGAD member, RiC-O development lead

## What Is It, Briefly Stated?

- a machine readable version of the conceptual model
- a tool for wider integration and sharing of archival description
- an opportunity for testing and community feedback

# What Is It, Briefly Stated?

## A Formal Representation Of RiC-CM

- BASICALLY, A FORMAL VERSION OF THE CONCEPTUAL MODEL...
  - a machine readable and processable one; just like, for example, EAC-CPF, a formal representation of ISAAR(CPF)
  - same scope as RiC-CM
  - generic
  - multilingual annotations
- 
- ...USING THE W3C SEMANTIC WEB STANDARDS FOR DEFINING ENTITIES AND THEIR RELATIONS
  - RDF (Resource Description Framework; a W3C recommendation since 1999, current version: RDF 1.1; see <http://www.w3.org/RDF/>) ;
  - RDFS (the RDF Schema language; a W3C recommendation since 2004; see <http://www.w3.org/TR/rdf-schema/>);
  - OWL (Web Ontology Language, first version dated 2004, 2<sup>nd</sup> one dated 2009; see <http://www.w3.org/2001/sw/wiki/OWL>)



# Why Such An Ontology?

## to be Able to Put Archival Metadata on the (Semantic) Web

- Archival description today: a lot of descriptive data, stored in a lot of formats (e.g. relational databases, EAD/XML, EAC-CPF/XML...) and languages, in a lot of different information systems, all over the world.
- The web: the largest and most powerful information system ever built; currently evolving towards a « semantic network » (based upon connected data sets, viewable as graphs)
- In order to populate this network, need to build rich machine-processable metadata from our data, having the RDF standardized form of simple triples (three-component phrases)

Ex. (in pseudo-RDF Turtle syntax) :

RDF subject	RDF predicate	RDF object
<code>anf:LucienFebvre</code>	<code>RiC-O:created</code>	<code>anf:fonds591AP</code> .
<code>anf:fonds591AP</code>	<code>rdf:type</code>	<code>RiC-O:RecordSet</code> .

each of the components (resources) having its unique identifier (URI).

## Why?

- TO LINK THE DATA TO OTHER DATA (to build rich Linked Data sets)

Ex. :

anf:LucienFebvre RiC-O:created anf:fonds591AP.

anf:LucienFebvre owl:sameAs

<http://data.bnf.fr/ark:/12148/cb119024609#foaf:Person>.

anf:LucienFebvre owl:sameAs <http://viaf.org/viaf/61545548>.

- TO ACCURATELY QUERY THE RDF DATA AND MAKE INFERENCES BASED ON THEM

Ex. visualize (or create from several graphs coming from several data sets) a graph concerning a person; discover, reading what other institutions know about him/her, that he/she lived or was born at some date and place, that he/she used several names, had different activities, then be able to enrich one's own data ; discover the archival records he/she created, the books he/she wrote, where all those cultural heritage objects are, etc.

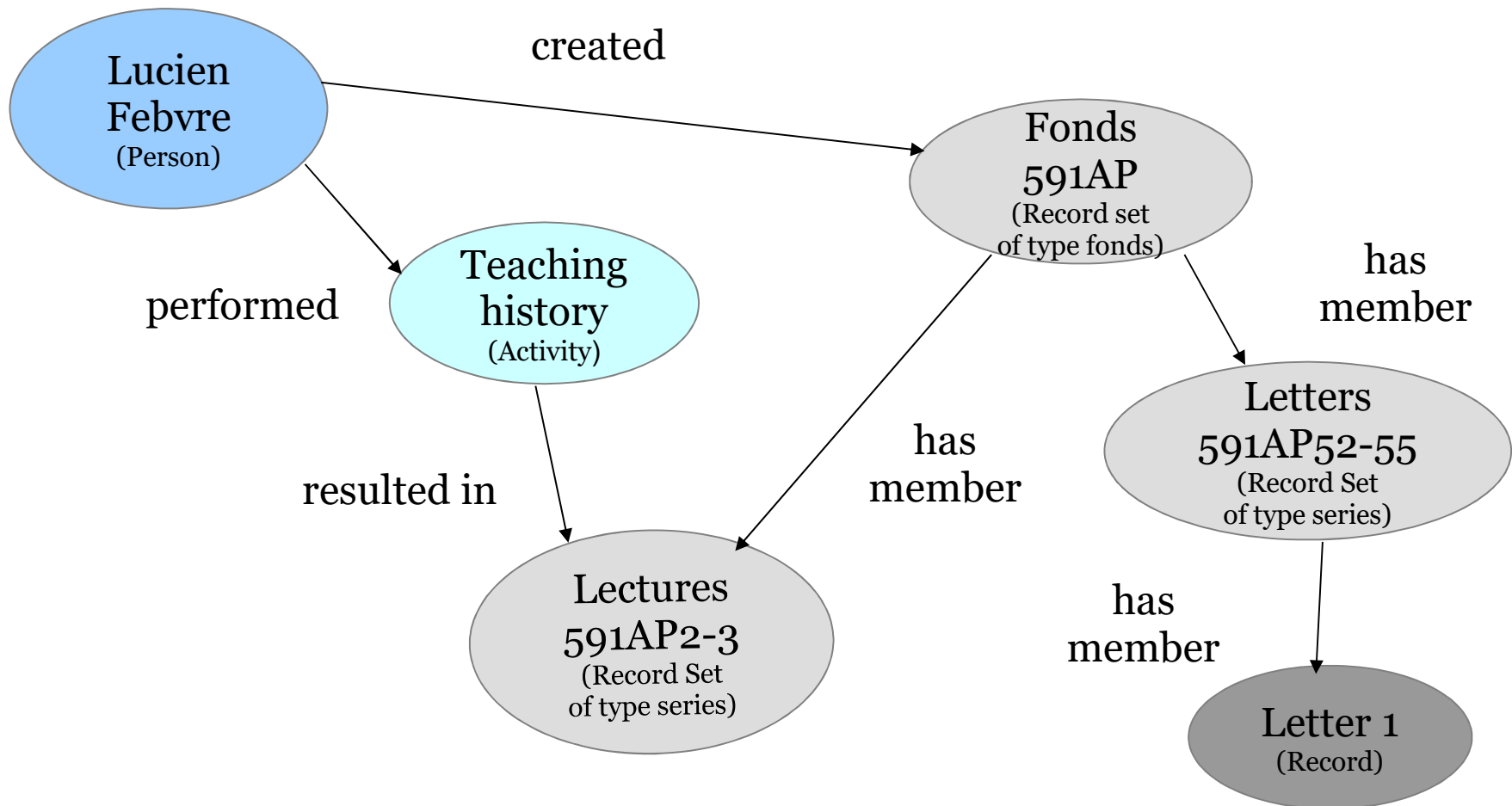
- LINKED DATA: AN OPEN WORLD, NOT A CLOSED, FULLY DEFINED DATABASE

But of course, if many (all) archival institutions use the same ontology to create their RDF metadata, it may :

- strongly enhance the query and processing results (key point for interoperability!)

- help make our concepts and data accessible, understandable, unambiguous, reusable

# The Archival World as a Graph of Entities and Relations: A Small and Simple Example



# The Same Statements in the Diagram, Expressed Using RDF Triples

anf:LucienFebvre	RiC-O:created	anf:fonds591AP .
anf:LucienFebvre	rdf:type	RiC-O:Person.
anf:fonds591AP	rdf:type	RiC-O:RecordSet .
anf:fonds591AP	RiC-O:hasMember	anf:letters591AP52To55 .
anf:letters591AP52To55	rdf:type	RiC-O:RecordSet .
anf:letters591AP52To55	RiC-O:hasMember	anf:letter1 .
anf:letter1	rdf:type	RiC-O:Record .
anf:LucienFebvre	RiC-O:performed	anf:teachingHistory .
anf:teachingHistory	rdf:type	RiC-O:Activity .
anf:teachingHistory	RiC-O:resultedIn	anf:Lectures591AP2to3 .
anf:Lectures591AP2to3	rdf:type	RiC-O:RecordSet .
anf:fonds591AP	RiC-O:hasMember	anf:Lectures591AP2to3 .

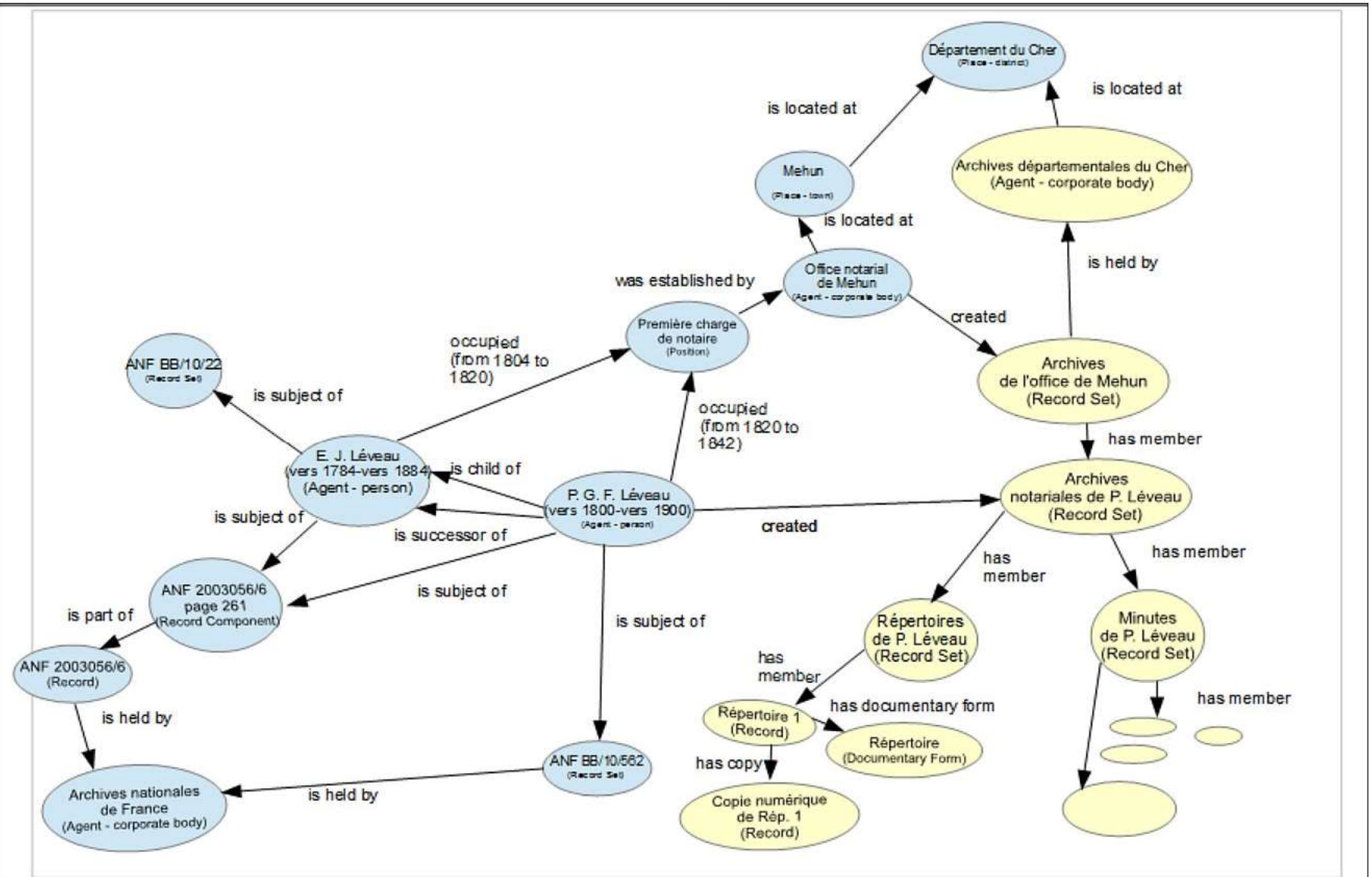
# Building RDF Archival Data Sets: The Role of RIC-O

The RiC ontology will define:

- the classes needed (corresponding to the entities of the conceptual model), such as Person, Record, RecordSet, Activity (plus other classes);
- the object properties needed (corresponding to the relations between entities of the conceptual model), such as created, hasMember, performs, resultedIn (and much more);
- some data properties (to be used if you want to say that an instance of a class has some feature expressed as a string  
Ex. : anf:letters591AP52To55 hasLocalIdentifier "591AP/52-55")
- the (possible multiple) hierarchy(ies) existing between some classes or some properties;
- the rules that govern those classes and properties, and that you must conform to when you use those classes and properties.

In short, it will be both the vocabulary needed and the grammar necessary to use the vocabulary, expressed formally.

# A More Complex Graph, Where Data From Two Archival Institutions Are Linked



# How We Build RIC-O: The Team

A few EGAD members:

- Florence Clavaud, Archives nationales (France) (leader of the team);
- Pete Johnston, Archives Hub (United Kingdom) ;
- Daniel Pitti, University of Virginia (U.S.A.) (chair of EGAD);
- Aaron Rubinstein, University of Massachusetts Amherst (U.S.A.);
- Salvatore Vassallo, Archivum Romanum Societatis Jesu (Italy).

# How We Build RIC-O: Principles

- COMPLETENESS

A domain ontology, taking into account any concept/entity of the real archival world, some top level abstract notions, and a lot of points of view and « functional » needs.

- CLARITY/ACCURACY

- Accurate definitions of the classes, of their properties, the domain and range of the properties, etc.

- Special care for genuine archival concepts and features: functions and the business entities, record set (and ordering sets), representing the history of entities, provenance and some curation events...

- Multilingual documentation in the end

- Examples

- FLEXIBILITY

- Allowing to use either the core entities only, or some very precisely defined low level ones (e.g. Record, or Record and its components ; Set) ; the whole ontology or a part of it

- Allowing to express some relations very simply as direct binary ones (using one verb to link two classes), or to use more complex paths, so that the relation becomes a class and can be described, given a date, a certainty, etc.

- Extensibility

- Openness (providing 'hooks' for other communities)



# How We Build RIC-O: Principles

## MAPPINGS (FOR A BETTER INTEGRATION OF OUR DATA TO LINKED DATA)

The archival domain is linked to (or part of) many other ones.

It is very important that our concepts (classes or properties) be compared with, and when applicable, aligned, with concepts defined in other ontologies:

### - ontologies for other domains of cultural heritage:

- CIDOC-CRM ([www.cidoc-crm.org/official\\_release\\_cidoc.html](http://www.cidoc-crm.org/official_release_cidoc.html))
- FRBRoo ([http://www.cidoc-crm.org/frbr\\_inro.html](http://www.cidoc-crm.org/frbr_inro.html))

### - ontologies for describing entities or events somewhat close or linked to the archival one:

- The PROV Ontology (PROV-O) (<http://www.w3.org/TR/prov-o/>)
- The Organization ontology (<http://www.w3.org/TR/vocab-org/>)
- Open Archives Initiative-Object Reuse and Exchange (OAI-ORE) (<https://www.openarchives.org/ore/>)

### - generic, widely used, ontologies:

- FOAF (Friend of a Friend) (<http://xmlns.com/foaf/spec/>)
- Dublin Core Metadata Initiative Terms (dcterms) (<http://dublincore.org/documents/dcmi-terms/>)
- LOD: An ontology for Linking Open Descriptions of Events (<http://linkedevents.org/ontology/>)

## How We Build RIC-O: Method

- THREE KINDS OF SIMULTANEOUS/ITERATIVE ACTIONS:
  - investigating on: technical specifications, main concepts of a formal ontology, tools and methods for building an ontology, design patterns, good practices;
  - analyzing several existing ontologies or models;
  - iteratively creating the ontology file and making some tests, using Protégé open source software
- A LOT OF DISCUSSIONS AND COLLECTIVE WORK:
  - mailing list
  - specific conference calls
  - work with other EGAD members
- FEEDBACK LOOP:  
developing and testing the ontology will help us build and refine the conceptual model
- USING A PRIVATE GIT REPOSITORY

# Overview of the Current Status of the Ontology (A Work in Progress): A Branch in the Class System

The screenshot displays an ontology editor interface with the following components:

- Navigation Bar:** Active Ontology, Entities, **Classes**, Object Properties, Data Properties, Annotation Properties, Individuals, OWLViz, DL Query, OntoGraf.
- Class hierarchy: Person:**
  - Thing
    - Date
    - Location
    - OccurrentEntity
    - PersistentEntity
      - Agent
        - AssumedIdentity
        - Delegate-Agent
        - Group
          - CorporateBody
          - Family
          - Person**
    - CulturalObject
      - ConceptualObject
      - CulturalPhysicalObject
    - PhysicalObject
      - CulturalPhysicalObject
      - NaturalPhysicalObject
        - Biological
        - NaturalGeographicFeature

- Annotations: Person:**
- Annotations +
  - comment [language: en]  
Person is distinguished from AssumedIdentity in order to make it possible to accurately distinguish between the Person and one or more "Person identities" that may be acquired over a life.
  - comment [language: en]  
This Agent identity is for a biological person. The identity is the identity the person is given in proximity to the date of birth.
- Description: Person:**
- Equivalent To +
- SubClass Of +
  - Agent
  - Biological
- SubClass Of (Anonymous Ancestor)
- Members +
  - 'Charles Delescluze in ANF world'
  - 'Charles Delescluze in BnF world'
  - 'Delescluze,\_Charles\_(1809-1871)'
  - 'Delescluze,\_Henri\_(1819-1879)'
  - 'Henri Delescluze in ANF world'

## ROADMAP

- First, develop a core (main domain entities and properties)  
Test and review everything iteratively
- Then, improve and enrich the ontology:
  - add more properties and the classes that are needed in order to express more complex analysis of some situations and an accurate representation of the history of the entities involved, such as: "event" and "role" classes and their own properties (certainty, source, date, place....), n-ary relationships
  - align the classes and properties with those of other ontologies (mappings)
  - add some vocabularies (SKOS representation of some features, such as some "types" : type of record sets, ...)
  - prepare an external documentation
  - continue checking conformance to CM
- Milestones:
  - first draft (beta version), and call for comments: by the end of 2016
  - version 1, with, if possible, a showcase: by the end of spring 2017

All versions will be released on GitHub: <http://github.com/ICA-EGAD>

Thank you!

Draft RIC-CM available at:  
<http://www.ica.org/egad-ric-conceptual-model>

Comments welcome at:  
[egad@ica.org](mailto:egad@ica.org)