Case study: hierarchical representation of event-related documents

1 Name

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2 Background information

The Cdmc is the project leader of the Portal of contemporary music resources in France (www.musiquecontemporaine.fr). This project numbers today ca. 40 partners, all organizations involved in whole or partially in contemporary (art) music in France: composition and performance, but also related activities such as education, artistic, scientific and technological research (and development where appropriate), musicology, aesthetics, sociology… As varied as their activities are the types of partner organizations: musical ensembles, event organizers, conservatories, music creation and r&d centers.

This portal aims at providing online means to localize and access (physically and electronically when available) the resources related to contemporary music that these organizations hold and/or produce, as well as informational resources. Many of the items in the first category are traces of musical and non-musical events (concerts, workshops, master classes, conferences…) such as audio and/or video recordings and program notes, but also include additional material – musical scores, books, periodicals…, while the second category includes information about (past as well as future) events.

3 Definition of hierarchies for the domain

As the sound recordings of performances of (usually new) works in concerts together with their accompanying documentation are an essential part of this portal, the information regarding the local and global *contexts* of their performances – the concert (in which other works were performed), the concert series or festival in which this concert was programmed along with other concerts or events – is of primary importance. This is also true for other kinds of recordings, such as those of a conference composed of thematic sessions, in which several talks may be given, each giving rise to an audio recording: the immediate context is the session, the larger one is the conference (which may be part of yet a larger event).

This is why the (single) metadata schema[1] for all the records in the portal allows for the description of physical and digital objects[2] as well as of events[3] by means of the specification[4] of a two-way, parent-child, relationship between any two metadata records[5]; not just those describing events. This is how the above-mentioned hierarchization (of events, in these case) is expressed.

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[1] Using MODS with minor modifications.

[2] Every partner may have its own model for its holdings, but has to make available the records it wishes to be harvested by the portal (using OAI) in the common model.

[3] By having added "event" as a legal value of the MODS <typeOfResource> tag. The other standard MODS fields allow expressing "point" events (occurring at a single point in time), repeated events (the same one occurring at different times) and time spans. The "kind" of event (e.g., concert, conference, master class…) is expressed by means of controlled values of the MODS <genre> tag.

[4] Using <relatedItem type="…">…</relatedItem> with distinct attributes, one for the link to the parent, one for the link to the children. The order in which the links to children appear in a parent record induces an order on the presentation of the children.

[5] Even if the metadata records describe items of different types. This may change.

Incidentally, this feature provides a way to describe other kinds of hierarchical structures: archives (fonds, collections…), musical works (an opera may be composed of acts, in turn composed of scenes; in a CD, each would typically be recorded as a separate track; this hierarchical system allows for a correct representation of the overall structure of the whole lot[6]), etc.
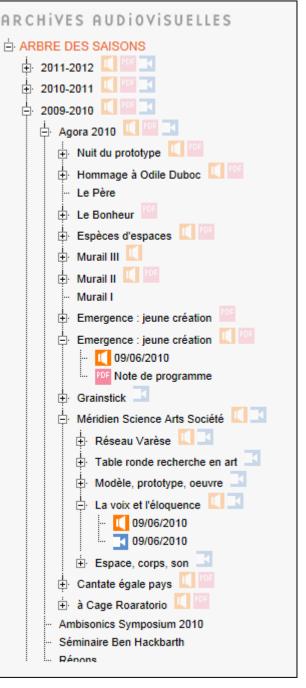
4 Use case scenario

I will concentrate here on the hierarchical representation of events.

An example is best illustrated by the figure on the right: it shows how such events and their related "traces" (sound recordings, program notes…) are shown to the users in one of the partners' sites (this mode of representation hasn't yet been implemented in the portal).

Every node can be folded or unfolded. The pale icons are hints indicating that appropriate digital (audio, video or text) content can be found somewhere in a yet-unfolded node. The icon is in full colors when attached to the (record describing the) actual contents. Clicking on that kind of leaf provides direct access to the contents.

It is obvious from this display that the *La voix et l'éloquence* event is part of a larger event, *Méridien Science Arts Société* (which had other "sub"-events), itself part of the Agora 2010 event (a festival composed of many other events). Anyone accessing directly a recording (say) down that hierarchy can chose to access other "nearby" recordings.

An event – a concert, say – may be repeated on several dates. It will still be described by a single metadata record, to which all the traces – e.g., the single program note (as it is good for all the performances) and the distinct recordings (one on each date) will be attached.
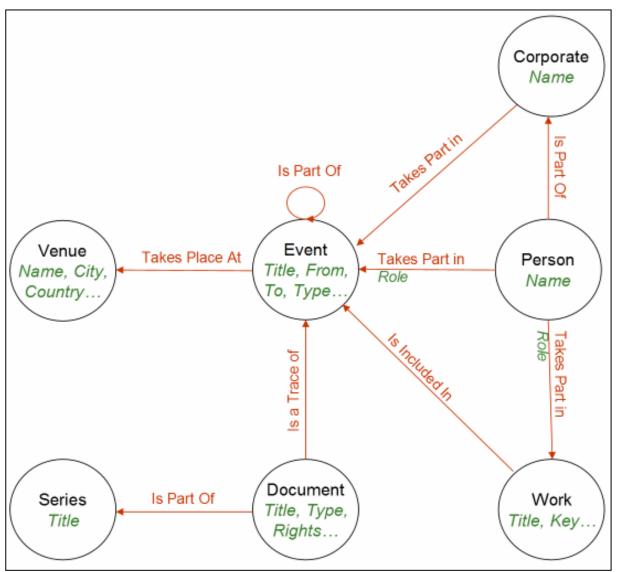
Metadata records for any event node (inner or leaf) contains hyperlinks to the parent, to the children (if any) and to the related digital documents.

A (partial) representation of the conceptual model used by that partner is shown on the next page.

5 Problems and limitations

The order in which the children of a node are displayed has been chosen in a specific way: first by yearly season (in reverse order), then alphabetically by event name in the season or

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[6] This level of description is used by at least one partner of the portal.

Corporate
Name

Is Part Of

Takes Part in

Is Part Of

Is Part Of

Venue
Name, City, Country…

Takes Place At

Event
Title, From, To, Type…

Takes Part in
Role

Person
Name

Is a Trace of

Is Included In

Takes Part in
Role

Series
Title

Is Part Of

Document
Title, Type, Rights…

Work
Title, Key…

within an event. In a more general setting this might be done differently (and/or left to the user).

In this implementation, the nodes and leaves of the tree are displayed vertically. In a different project, the leaves were displayed as a linear, horizontal list (as there were much more numerous).

The issue of the granularity of the events (at which point a node should be a leaf rather than further subdivided) is left to the partner. In more general settings it might be desirable to provide guidelines.

In this implementation, there is no specific verification of the validity of the parent-child relation (e.g., ensuring that a parent lists all its children and that a child has just one parent, that the dates of the child are within those of the parent, avoiding loops, etc.).

6 Proposed solutions for Europeana

(This is a slight abuse of the title of this section). I believe that hierarchical representation of events will be useful in Europeana not only for such events as described here, but e.g. in order to generate automatically timelines, to describe historical events and their "components", etc.