

Modeling Metadata for Folkloric Dance: A Case Study in Flamenco

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Abstract

Modeling metadata for performing arts is notoriously complex, especially when it comes to folk dance—a deeply embodied and community-based form of Intangible Cultural Heritage (ICH). This paper explores the challenges of representing folk dance within digital metadata frameworks, proposing a model for a socially networked, user-driven repository. Drawing from my own experience with a flamenco dance collective and referencing models like Europeana’s ECLAP, FRBRoo, and CIDOC-CRM, I outline a web-based system that would allow dancers, educators, and researchers to upload, describe, and explore folk dance materials through rich, culturally specific metadata. Special attention is given to community defined local vocabularies, social networks, and the pedagogical practices that emerged during remote learning. This paper argues that preservation frameworks must center the communities they seek to represent, treating metadata not only as a technical tool but as a participatory, cultural act. The proposed model aims to bridge institutional needs with grassroots knowledge production in the ongoing effort to safeguard intangible cultural heritage.

Introduction

The intricate web of relationships embedded in dance events and their re-presentation—which includes environmental factors, multiple actors/creators/performers, a variety of props, costumes and set pieces, variously choreographed and improvised structures, etc.—make description and

preservation of such complex and ephemeral phenomena a significant challenge to the cultural heritage sector. There is no one definitive metadata model that fully encompasses all factors involved when it comes to preserving performing arts, nor is there an agreed upon standard for digitally documenting such events.

In 2003, UNESCO listed traditional dance as one form of Intangible Cultural Heritage that is in urgent need of preserving. When it comes to preservation of Intangible Cultural Heritage (ICH) such as folk dance, not only are the same issues applicable to the problematics of modeling metadata for performance, but folk dance has the added complications of having highly specific terminologies in languages of varying contemporality or dialect, occurring in informal venues and variable documentation settings, and being highly defined within specific social communities of varying size and location. Additionally, folk dance is often embedded in a broader set of social practices which includes oral tradition, broader festivals, and ritual.

Creators and artists within these communities are primarily concerned, unsurprisingly, with creating work, sustaining their communities, and presenting that work in some capacity, not with documenting their work or describing it for a broader audience. That work is the domain of cultural heritage institutions, whose aim is to adapt more efficient ways to aggregate this information and to lower the technical barriers for content creators and providers to share their resources. Yet folk dance requires some level of subject expertise to be accurately described for audiences outside the cultural settings these dances exist within, and broader interest in and at least some cursory knowledge and understanding of these intangible art forms is critical to the survival of these artifacts of intangible cultural heritage in an increasingly globalized world. Folk dances are defined by their lived embodiment within a particular geographically situated community, and access to teachers, community members or environments where one could learn these dances is contingent on one's physical proximity to individuals or cultural spaces.

Frameworks and Influences

For those interested in learning these dances themselves or for researchers studying these dances in terms of their relationship to a particular culture or identity, some metadata frameworks have been proposed, but there is still a lack of consensus on who and what specific purpose these frameworks serve. This paper considers various solutions for modeling performing arts metadata to propose a specialized framework for a web-based server and aggregator to preserve and allow user interaction and participation in building a living, socially networked repository of contemporary folk-dance communities. I use a community of flamenco dancers in San Francisco that I used to dance with as a proof-of-concept example to develop a metadata strategy for a community-driven, contemporary folk-dance repository influenced by the Europeana Data Model (EDM), specifically Europeana's ECLAP model for performing arts. Specific schemas employed by the ECLAP model that will be focused on in this paper are integrations with FRBR object ontology for structural metadata, Dublin Core for descriptive metadata, and MPEG-7 for technical metadata with embedded timestamps for learning elements of individual dances.

This model is also influenced by adaptations the aforementioned flamenco dance collective had to

make during the pandemic. The lock-down and emergency stay at home orders during 2020 caused the group to abruptly halt in person lessons, practices and performances. The group immediately transitioned to Zoom lessons and practices, without any concept of when they would be able to dance or perform in person together again. Zoom classes proved very difficult to synchronize movement and music, and the feeling of dancing together was largely lost.

As weeks turned to months, their Zoom meetings took on a very different structure. Participants would analyze videos of performances online and talk about the formal and structural qualities of the performance, such as the specific mode or rhythm, *compas*, the performance was in, what footwork or *cambios* were being used, what part of Spain this mode of flamenco came from, and which ethnic communities settled in these regions of southern Spain to inflect this mode of flamenco, doing the same with audio of flamenco music. This was essentially verbalized metadata generation sessions by subject experts for the purposes of connecting embodied iterations of the dance with music theory and deepened cultural understanding. Participants in these classes were mixed level with various specific affinities, so information sharing across skill levels was fundamental.

Users and Aggregators

The primary users of the proposed model include dancers (both amateur and professional), musicians, dance teachers, researchers, media producers and members of the public who have a curiosity in folk dance. The model has the aim of allowing users and aggregators the ability to search information on specific dances and sub-genres within that dance form, learn specific steps and rhythmic structures following videos with embedded, time-stamped metadata, learn about props and costumes traditionally used in these various dances, and finally, connect specific dances/modalities within various folk dances to their specific geographical regions of origin and foster deeper cultural understandings and connections between current and even local dancers. The framework will present a visualization of the social relations that are so important in these communities and to the transfer of knowledge about the dances, connecting dancers to teachers, performers to performances, and geolocating these individuals and events so that people who are interested in learning or even participating in a community know who and where to search. In the end, the model's success will be highly contingent on creator/aggregator interaction and will rely on principles of crowdsourcing and user participation.

Function

The collection would primarily be composed of videos of dance performances, linked to individuals/entities, and be uploaded to a centralized portal by community members who create login credentials and usernames to gain permissions access as metadata contributors. The repositories could also include still images of performances, prop and costume elements that belong in those respective collections. Videos could vary from being instructional by nature, used for teaching/practice, or could be documentation of performances that are not didactic by nature. Top level directory of the digital repository would be a list of various folkloric dances which would bring the user to specific map based graphical portals for those dances. Smaller collections are aggregated based on communities and the

members within and could also be described on the group level.

The portal would act as a digital repository of dance videos that could act as an online portfolio or archive for the group and offers metadata sufficient to be educational on context on the history of flamenco, the history of the dance collective, and the social relationships that exist between the group members and a wider audience/user base, with applicable intellectual property rights metadata attached to the objects. Metadata would be sufficient to teach individual dances, connect dances with instantiations and specific performances of that dance or dance structure, connect specific performances with performers and choreographers, and ultimately connect individuals or smaller groups to a broader global community of the specific folk dance.

The resources and metadata on the portal would be primarily creator- and user-generated, organized around broad categories of content, context, and structure, as outlined by Dr. Anne Gilliland. In her foundational work *Setting the Stage*, Gilliland highlights the challenges and opportunities introduced by the web and network technologies in the management of user-generated content and metadata:

For more than a century... the creation and management of metadata was primarily the responsibility of information professionals engaged in cataloging, classification, and indexing; but as more information resources were created or put online and networked—especially via the web—by the general public, metadata considerations were no longer solely the province of information professionals.¹

This is especially relevant if we consider how difficult intangible cultural heritage is difficult to describe for people who are not related in any way to the respective community or culture. Gilliland stresses the importance creators and users of digital content have in ensuring accessible, authoritative, interoperable, scalable, and preservable cultural heritage information and record-keeping systems.² With this sentiment in mind, the portal would present a socially networked environment where users can gain unmediated access to information objects and contribute relevant metadata as a means of engagement and further learning, as well as showcasing their work and that of their peers, contributing to the broader community of the respective folk dance.

Vocabularies and Taxonomies

Taxonomies for various folk dances and their respective controlled vocabularies would be required to be locally defined and formalized. There is a lack of formalized taxonomies and controlled vocabularies around ethnic or folk dances, especially because many folk and ethnic dances stem from cultures where orality is prevalent. In seeking examples of taxonomies for flamenco, the only models I was able to find were outlined on individual dancer or dance teachers' personal websites, bringing further attention to the need for a more crowdsourced aggregation model of information on these types of dances. There are likely hundreds of these distinct *palos*, within flamenco, broadly classified by criteria such as rhythmic pattern, mode, chord progression, stanzaic form and geographic origin. A Wikipedia user created the figure below as an attempt at a basic taxonomy of flamenco palos:

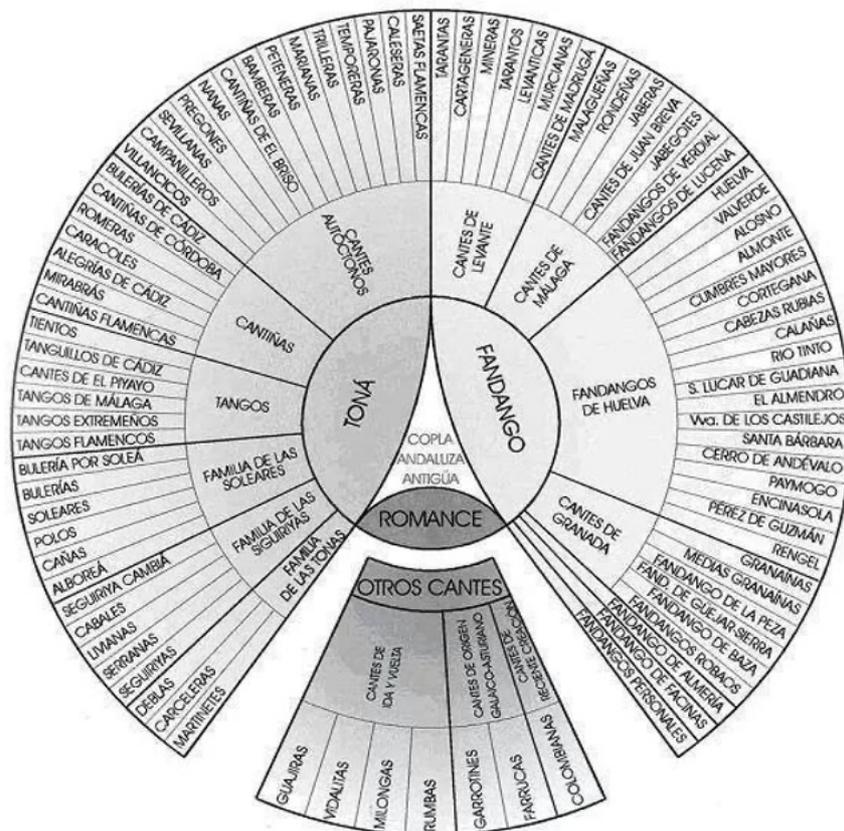


Fig. 1 Taxonomy model of Flamenco palos created by a Wikipedia user Angvm11

Relationships

While much of flamenco follows a general structure within which steps and sections are largely improvised, there are some folk dances that remain largely choreographed and consistent. For these dances that are essentially the same but performed in various settings by various performers, the International Federation of Library Associations and Institutions' (IFLA)

Functional Requirements for Bibliographic Records model is an appropriate framework to turn to which employs a conceptual entity-relationship model, achieving a more holistic approach to retrieval and access from a user's perspective.³ Specifically for the application of the proposed folk dance portal, FRBRoo (object oriented) would be employed its harmonization with the International Committee for Documentation-Conceptual Reference Model (CIDOC- CRM), to facilitate the portal's future implementation as Linked Open Data.

The main entities in FRBRoo, work, expression, manifestation, and item can, for the flamenco portal of the proposed folk dance portal, be interpreted in the following way: the Work-level entity would be the type of dance, for example, *Sevillanas*, which is a standardized folk dance associated with a spring festival in the south of Spain called Feria. The expression would be the varieties of the dance, or in this case, a specific entity or group performing *Sevillanas*, and finally, the manifestation would be the recording of that entity or group's version of *Sevillanas* performed at a particular location or venue. These three levels allow aggregators to create a record that describes the metadata of the dance, embodying all the records referring to that dance.

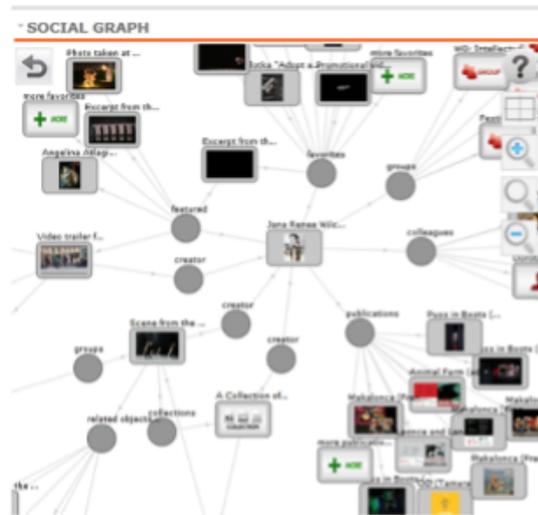


Fig. 2 Example of ECLAP Social Graph model that could be adapted to the folk dance portal 4

A critical component of Europeana's ECLAP model is to establish social networking relationships amongst entities and objects using friend of a friend (foaf) relationships⁵ and semantic web standards such as ORE, Dublin Core, and SKOS.⁶ In order to facilitate this, distinctions had to be created between objects and their representation, or in this case, events (performances), and their digital representation, in the form of a video recording. Additionally, distinctions between the object (event) and the metadata describing the event itself had to be respected. Multiple records could also be uploaded to the portal by different users of the same event, as well as objects (events) composed of multiple objects (specific parts of one larger event being able to be broken down into sub-events, for instance, if a performance is made up of distinct dances as is often the case). Metadata for those distinct elements was enabled and the model provided a vocabulary format that was able to be specialized.⁷

Conclusion

Creating such a portal for folk dance that encompasses so many relationships and includes a social network modeling and LOD operability would require employing and combining many metadata schemas and strategies. There is not a one size fits all solution for modeling metadata for performing arts, and especially when performing arts takes the form of folkloric dance, many additional challenges and considerations arise. Significant user participation and crowdsourcing would be required, which would often put the onus on the creators themselves to not only create and document works, but to aggregate metadata within the portal. The benefits to the creators would be improved search and findability of their work within a broader network of contemporary folk dancers, and for amateurs, a deeper engagement and level of learning of the cultural heritage.

Trevor Owens, a digital archivist at the Library of Congress, urges a re-framing of the term amateurs in much the same vein as Anne Gilliland, as well as reframing our relationship to this type of work:

When we use the term “a day’s work” we are directly referring to labor—to the kinds of work that one engages in as a financial transaction for pay. In contrast, when we use the term “work” to refer to someone’s “life’s work,” we are referring to something that is significantly different. The former is about acquiring the resources one needs to survive. The latter is about the activities that we engage in that give our lives meaning. In cultural heritage, we have values and missions and we are in an opportune position to invite the public to participate. However, when we do so, we should not treat them as a crowd, and we should not attempt to source labor from them. When we invite the public we should do so under a different set of terms.⁸

Preserving folk dance as intangible cultural heritage requires metadata systems that are not only technically robust but also deeply attuned to the lived, embodied, and community-centered nature of these art forms. This paper has proposed a model for a networked, community-driven metadata repository for contemporary folk dance, using a flamenco collective as a proof-of-concept. By leveraging established models like FRBRoo and ECLAP, and foregrounding user participation, this approach recognizes creators as both knowledge bearers and metadata producers. Such a framework re-positions preservation as an active, culturally embedded process—one where metadata becomes a form of storytelling, pedagogy, and community continuity. Future work might include prototyping this portal in collaboration with dance communities themselves, with the ultimate goal of fostering a more inclusive, participatory approach to cultural memory and access.

Dance	Music	Performance	Recording	Performer
danceType	songName	performanceName	fileName	performerName
danceSubcategory	songTimeSignature	performanceDate	fileType	performerRole
danceOrigin	songMode	performancePlace	fileDescription	performerAffect
danceCentury	songLyrics	performanceCountry	fileDuration	performerCostume
danceMode	songCreator	geolocator URI		performerProp
				performerDOB
				performerCountry

Table 1: Proposed metadata fields

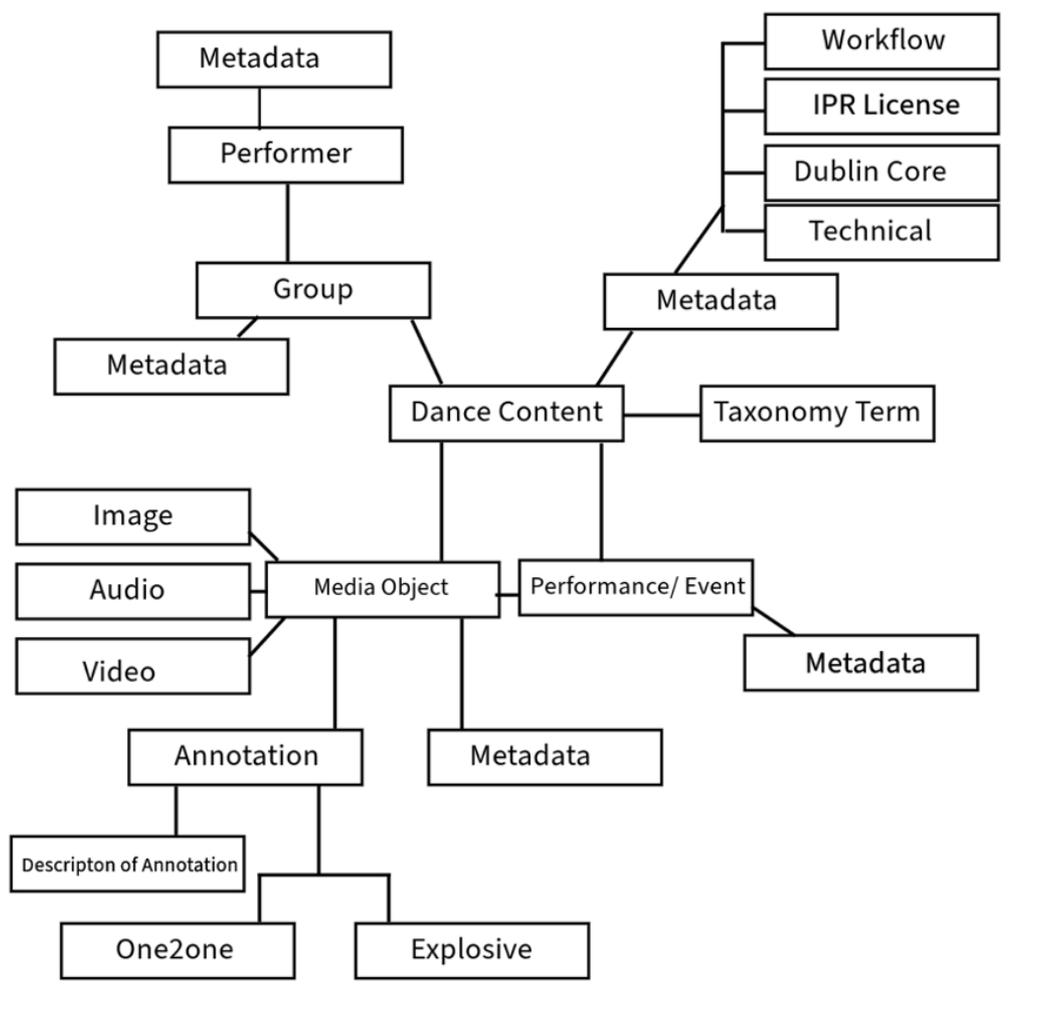


Fig 4. Proposed semantic model

¹ Gilliland, Anne J. *Setting the Stage. An Introduction to Metadata*, edited by Murtha Baca. 3rd ed. Los Angeles: Getty Publications, 2016. Accessed June 11, 2024. <https://www.getty.edu/publications/intrometadata/setting-the-stage/>.

² *ibid.*

³ Doerr, Bekiari M., and Le Boeuf, Patrick C. *FRBRoo, a Conceptual Model for Performing Arts*. In: 2008 Annual Conference of CIDOC, Athens, 15–18 Sep 2008. <http://cidoc.mediahost.org/archive/cidoc2008/Documents/papers/drfile.2008-06-42.pdf>.

⁴ Bellini, Pierfrancesco, and Nesi, Paolo. *Modeling Performing Arts Metadata and Relationships in Content Service for Institutions*. Springerlink.com, 2014. Accessed June 11, 2024. <https://link.springer.com/article/10.1007/s00530-014-0366-0>.

⁵ Dodds, Leah. *An Introduction to FOAF*. XML.org. February 4, 2004. Accessed June 11, 2024. <https://www.xml.com/pub/a/2004/02/04/foaf.html>.

⁶ Bellini & Nesi, *Modeling Performing Art Metadata*, 442–443.

⁷ *ibid.*

⁸ Owen, Trevor. *Digital Cultural Heritage and the Crowd*. *Curator: The Museum Journal*. 56:1. 2013. Accessed June 10, 2024.

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