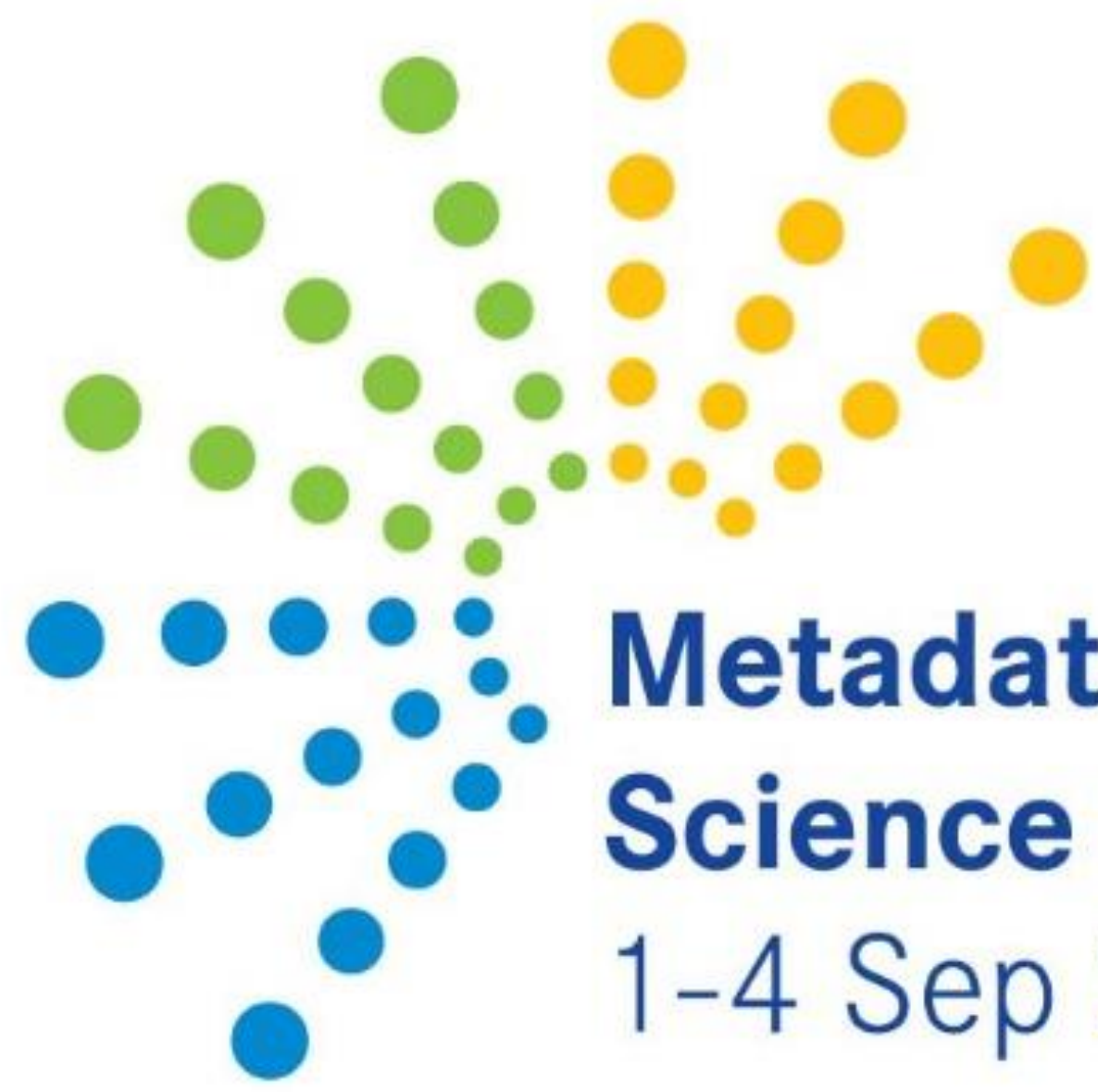




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Dublin Core and CIDOC CRM harmonization

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INTRODUCTION AND OBJECTIVE

As semantics mappings can be a solution for information integration and Dublin Core is the most prominent metadata used to describe digital resources, we propose a harmonization between Dublin Core and CIDOC Conceptual Reference Model ontology.

RESULTS

Dublin Core	CIDOC CRM	Dublin Core	CIDOC CRM
Contributor	E39 Actor	Type	E55 Type
	E74 Group	Publisher	E17 Type Assignment
	E41 Appellation		E12 Production
	E10 Transfer of Custody		E29 Design or Procedure
Coverage	E66 Formation		E51 Contact Point
	E50 Date	Identifier	E42 Object Identifier
	E52 Time-Span		E15 Identifier Assignment
	E53 Place		E73 Information Object
Creator	E47 Spatial Coordinates		E71 Man-Made Stuff
	E45 Address	Type	E70 Stuff
	E48 Place Name		E55 Type
	E39 Actor		E17 Type Assignment
Language	E40 Legal Body	Date	E2 Temporal Entity
	E66 Formation		E4 Period
	E74 Group		E50 Date
	E41 Appellation		E40 Legal Body
Description	E56 Language	Rights	E30 Right
	E5 Event		E72 Legal Object
	E7 Activity		E42 Object Identifier
	E12 Production		E62 String
	E14 Condition Assessment	Source	E73 Information Object
	E3 Condition State		E16 Measurement
	E18 Physical Stuff		E29 Design or Procedure
	E19 Physical Object		E54 Dimension
	E20 Biological Object	Format	E57 Material
	E22 Man-Made Object		E58 Measurement Unit
	E23 Iconographic Object		
	E24 Physical Man-Made Stuff		
Subject	E25 Man-Made Feature	Relation	E27 Site
	E26 Physical Feature		E31 Document
	E28 Conceptual Object		
	E73 Information Object		
	E46 Section Definition		

TABLE 1: DC and CIDOC CRM Harmonization.

DISCUSSION

According to the literature, there are many XML metadata mapping to the CIDOC CRM ontology efforts, since this ontology is considered one of the most appropriate models in integration architecture. On the other hand, Dublin Core is the most used metadata in semantic web applications. In this way, metadata can be mapped into an ontology to provide interoperability of its data and to achieve information integration. When the different kind of metadata are mapped into an ontology the system can interoperate and the information access is higher as well as their information retrieval.

FINAL CONSIDERATIONS

The major difficulty found in this research was that the Dublin Core has just 15 attributes, on the other hand, CIDOC CRM has 93 entities, making it difficult to express all CRM relationships thus in this work we chose only those entities that have their concepts more similar to the DC. As Dublin Core is the most prominent metadata used to describe web resources, a Dublin Core and CIDOC CRM cross-walking model will be developed in a future work in order to handle cultural heritage data representation into the web.

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