Documentation of Ethnographical Object Biography using CIDOC CRM

Sakiko Kawabe, Akihiro Kameda, Makoto Goto
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1. Introduction of our project

Project in National Museum of Japanese History (NMJH)

**Integrated studies of cultural and research resources (ISCRR)**

- Conducting interdisciplinary studies on resources across institutes
- Enabling access to primary evidence of research results
- Promoting Japanese studies beyond Japan
- Data backup of resources in case of disaster

Networking and visualizing resources in universities and museums all over Japan.
1. Introduction of our project
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1. Introduction of our project
2. Introduction of this research

Documentation of Object Biography

In museum context, tracing object biographies unveils social relations or networks of actors and objects and helps us to see “the wide range of sites and different forms of agency which were part of the creation and ongoing lives of museum collections”. (Byrne et al. 2011: 14).

It conveys important information on “the accumulation of meaning in objects” (Gosden and Marshall 1999: 177).

We use CIDOC CRM to document object biography because it is one of the most suitable frameworks to describe “events” in detail and visualize the layers and interrelationships among them and actors..

References
2. Introduction of this research

Rekimin Cards

Created through historical and folklore surveys conducted by the Agency for Cultural Affairs in Japan between October 1972 and February 1974.

Photograph

Tageta a pair of wooden boards or frames, which were put worn on the feet in paddy fields so as not to sink and push weeds inside the paddies.

Rekimin Cards
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2. Introduction of this research

Modeling started with *E22 Human-Made Object* and entities that have direct relations with the human-made object.
2. Introduction of this research

Experimental model for data recorded in a Rekimin Card using CIDOC CRM (Version 6.2.9), W3C PROV-O, and Object Biography Ontology with basic ontology like Dublin Core and RDFS.
Usage: “For cultivation work at deep or low wet paddies. These tageta were put worn on the feet like snowshoes. They were used especially for harvesting rice in the Ouchi Graben which is partly as deep as waist-high. It is said that there were much larger tageta.”
3. Questions and tentative solutions

Q2
How to describe ‘keeping’?

E21 Person Keeper

P14 carried out by ob:hadEvent ob:Keeping

“hung on a wall or beam in a shed or stable” dc:description

E7 Activity

owl:equivalentClass

E22 Human-Made Object

rdfs:subClassOf

P49 has former or current keeper

E21 Person Keeper

P14 carried out by
3. Questions and tentative solutions

Q3

How to describe ‘collecting’?

“Background of collecting: Given by the old owner at establishing Kanamarude Town Museum”

E22 Human-Made Object

E9 Move

P25 moved by

E10 Transfer of Custody

P30 custody transferred through

E8 Acquisition

P24 changed ownership through

E9 Move

ob:hadEvent

ob:Activity

Collecting (採集)

ob:includesEvent
dc:description

ob:includesEvent

ob:includesEvent

ob:includesEvent

E8 Acquisition
3. Questions and tentative solutions

Q4

How to describe general information of objects?
3. Questions and tentative solutions

**Q5**

Can E31 Document be a subclass of E89 Propositional Object and E90 Symbolic Object at the same time?
3. Questions and tentative solutions

Q6

Can P70 documents and P141 assigned be used to connect both of attribute keys and values?
**P70 documents (is documented in)**

**Domain:** E31 Document  
**Range:** E1 CRM Entity  
**Subproperty of:** E89 Propositional Object. P67 refers to (is referred to by): E1 CRM Entity  
**Quantification:** many to many, necessary (1..n:0,n)

**Scope note:** This property describes the CRM Entities documented as instances of E31 Document. Documents may describe any conceivable entity, hence the link to the highest-level entity in the CIDOC CRM class hierarchy. This property is intended for cases where a reference is regarded as making a proposition about reality. This may be of a documentary character, in the scholarly or scientific sense, or a more general statement.

**Examples:**
- the British Museum catalogue (E31) *documents* the British Museum’s Collection (E78)

**In First Order Logic:**

\[
P70 (x,y) \supset E31(x) \\
P70 (x,y) \supset E1(y) \\
P70(x,y) \supset P67(x,y)
\]
3. Questions and tentative solutions

Q7

How to describe relationships between information and its source?
3. Questions and tentative solutions

Q8

How to describe digitalization of text data using CIDOC CRM?
4. Object Biography ontology
5. Conclusion

In our modeling process, it was revealed that ethnographical object biography can be documented by using CIDOC CRM with other supplementary ontologies in a way to accurately describe events that have happened to objects and the knowledge generation where the “reality” was written.

We hope to discuss further the improvement of the models and documentation processes among various practitioners.
Thank you!

Comments or suggestions?

Contact email address: sakikok125@gmail.com